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REPORT

ON THE



SANITARY ADMINISTRATION OF THE PUNJAB

FOR THE YEAR 1898.

BY

LIEUT.-COLONEL C. J. BAMBER, I.M.S.,
Offg. Sanitary Commissioner, Punjab.



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READ—

The Report on the Sanitary Administration of the Province for the year 1898, by Lieutenant-Colonel C. J. BAMBER, I. M. S., Officiating Sanitary Commissioner, Punjab.

REMARKS.—Births.—There was a decrease of 32,754 in the recorded number of births as compared with the year 1897, paragraphs 1 and 2.

and a falling-off of 16 in the birth-rate per 1,000

of population. The rate was also 0·7 less than the mean average birth-rate per *mille* of the last five years. Nevertheless the Punjab sustained its reputation as holding the first place in regard to its birth-rate of all the Provinces in India. The explanation that the scarcity which prevailed in the year prior to the year under review (1897) may account for the decrease in the birth-rate cannot, however, be accepted as correct when it is considered that the birth-rate in the two districts which suffered most from scarcity in 1897 (Gujrát and Hissar) show a higher birth-rate in 1898—

	1897.	1898.
Gujrát ...	... 35·7	38·1
Hissar ...	... 33·9	43·2

Again, if Provinces are taken, it is found that the North-Western Provinces and the Central Provinces, which suffered most severely from famine in 1897, show a higher birth-rate in 1898—

	1897.	1898.
North-Western Provinces	... 31·10	37·35
Central Provinces ...	... 26·66	29·61

2. Some of the fluctuations in the table in paragraph 3 giving the birth-rates in districts are remarkable. For example,

Paragraphs 3 to 5

Mooltan, which stood 4th in order of rate in

1897 with 48·5 this year, drops to the 16th place with a rate of only 39. Muzaffargarh stood 8th in 1897, with 47·2; it is now 35·1, or 22nd. These two districts adjoin, and it would be undoubtedly satisfactory if some assignable cause for this heavy fall in the birth-rate in this part of the Province could be put forward; nevertheless His Honor sees no reason to question the claim of the Sanitary Commissioner that birth registration in the districts generally is more accurate than it was some years ago. The table appended to paragraph 5 of the Report also exhibits considerable fluctuations in respect to the birth-rates registered in the principal towns, but the Lieutenant-Governor observes that the population of particular towns fluctuates a good deal, and at the same time it is almost certain that the statistics for towns are more accurate than for the rural tracts. If then there is reason to think that on the whole the statistics are improving, he would be inclined to say that what is wrong in the towns is the assumed population, not the registration of deaths. The fact that the calculations have to be made on the figures of the census of 1891 accounts for a great deal in these days, when great changes are going on in consequence of the construction of railways and canals.

With regard to the towns that show a birth-rate considerably below the average it is difficult to understand why birth registration should be more defective in Lahore than, say, in a place like Palwal. There should, His Honor considers, be no excuse for defective registration in such towns as Lahore, Ráwalpindi and Pesháwar.

3. **Deaths.**—The death-rate was the same as in the year 1897, *viz.*, 31·05,

Paragraphs 6 to 12.

the actual number of deaths registered having been 638,124, or 103 less than in the previous

year. It would have been interesting had the Sanitary Commissioner worked

out the causes which led to Dera Ismail Khan being the most unhealthy district in the Province both in 1897 and 1898. Although the district has a bad reputation for a virulent form of fever, it seems possible that there may be something wrong about the figures. The death-rate for the whole Province for 1897 and 1898 is practically the same, yet the death-rate of the most unhealthy district drops from 50·18 per 1,000 in the former year to 40·11 in the latter, or 10·09 less than it was in 1897. It is remarkable that there were over 5,000 more deaths from fever in Gujránwála in 1898 than in 1897. This district now stands 7th in order of mortality from fever; in the year 1897 it stood 17th. In view of the possibility of the recently opened Chenab Canal having something to do with this, the water level in this tract is being observed with special reference to the question of the effect of irrigation on the public health. In any case, however, the vital statistics of the district should be carefully watched in future, and the Lieutenant-Governor wishes the Sanitary Commissioner to bear this in mind. The deduction drawn in paragraph 12 of the Report between the results of registration in England and Wales and the Punjab are, His Honor observes, about the most encouraging proof of improved registration in the Punjab.

4. Death-rate among Native Christians and other classes.—With reference to the remark in the Report that there is no

Paragraphs 13 and 14

reason why Native Christians should be healthier

than other natives, His Honor observes that this a moot point. Whatever may be said to the contrary, the fact remains that the figures *do* show that both in 1897 and 1898 the mortality among Native Christians is comparatively low. This class, too, it would be supposed, realises the importance of observing sanitary laws, it lives more or less under the eye of Europeans, and is less conservative as regards objectionable habits and customs which Sanitary authorities condemn in the less educated native classes. The alleged fact that the high death-rate under other classes (114·55 in 1897; 79·61 in 1898) is due to an error of classification of population requires careful examination, as it must in a great degree vitiate the whole of the figures.

5. Registration among Europeans and in Cantonments.—His Honor is

Paragraphs 15 and 16

glad to observe that the European population is paying more attention to the registration of their

births and deaths. He, however, cannot understand why registration should be so defective in cantonments. Those residing within such limits are surely more under control, and more likely to give correct information than those living in ordinary villages and towns. The Lieutenant-Governor thinks there can be no good reason for the defect, and desires that efforts should be made to ascertain the causes and remove them.

6. Inspections.—If each alleged inspection shown in the table attached to paragraph 17 of the Report is a separate and

Paragraph 17.

distinct one, that is, if the superior inspecting

agent's second inspection of work already inspected is not shown as a second inspection, and if these figures can be relied upon for accuracy, they show that the checking of birth registration is very complete in the Punjab, as only 6·3 per cent. of the total recorded births were not checked. The figures appear, however, to be open to doubt. Take the Lahore Division for instance. There were altogether 198,790 births registered in the year (see Annual Form No. 1), and yet vaccinators *alone* are reported to have inspected 254,283 entries of birth. His Honor will be glad to receive any explanation the Sanitary Commissioner may have to offer.

7. Chief Diseases.—The year was again on the whole a healthy one as in

Paragraphs 19 to 29.

1897. There were only 33 deaths from cholera: small-pox was much less prevalent than in 1897,

and there was less fever, though the mortality from this cause was as usual severe, 418,206 deaths having been registered from it. Dysentery and diarrhoea prevailed to much the same extent as in 1897. The outbreak of bubonic plague which occurred in October 1897 and continued throughout the year under report, has been described in reports by Major Inglis, I.S.C., and Captain James, I.M.S.,

and the Lieutenant-Governor's remarks on the subject were recorded in the Proceedings of this Government in the Home (Medical and Sanitary) Department, No. 1479 F, dated 17th December 1898. It is sufficient to say here that the disease never extended beyond the Garhshankar Tahsil of Hoshiárpur, and the Nawashahr and a small part of the Phillour Tahsil of Jullundur; that its increase began in February, became serious in March and April, and reached culminating point in the first ten days of May, after which there was a steady fall till a reduction in the staff on plague duty became feasible in the middle of July; thereafter, that the disease was kept alive by a chain of sporadic cases, mostly of a mild type, till towards the end of the year, when it began again to assume a menacing form and made it evident that it had obtained a hold on the municipal town of Ráhon. Its history during the current year has been similar, though the area of infection has been much more circumscribed and the period of virulence markedly shorter.

8. *Injuries.*—Under this head it is only necessary to note with reference to the allusion to the proposed Pasteur Institute for India in paragraph 35 that it is understood Paragraphs 30 to 35 that this matter is still engaging the attention of the Government of India.

9. *Sanitary Works.*—In discussing the Sanitary Commissioner's Report for 1896 the Army Sanitary Commission drew Paragraphs 37 to 43. attention to the indefiniteness of the conclusions given by the endeavour to show from vital statistics the influence on general health exercised by drainage schemes and the provision of water supplies. Improved registration of deaths may obscure the real facts: and the unwillingness of the people, as a whole, to use pipe water particularly on its first introduction tends to discount the value of a pure supply. When, however, as is the case with some of the figures accompanying paragraph 43 of the Report now under review, there is *prima facie* evidence of a deterioration in health in certain respects in particular localities where sanitary improvements have been effected, the matter is one which deserves investigation. In the words of the Sanitary Commissioner with the Government of India in paragraph 206 of his Report for 1896: "There may be no real improvement in the quality of the water consumed, or some condition detrimental to the public health may have accompanied introduction of an improved supply of water. In most of the towns it may be concluded from the amount of water per head that is taken from the works that a mixed supply is being used, and this is an unmixed evil, for the old sources of water are much less likely to be conserved than they were before the introduction of new supplies. It may be that sufficient care is not bestowed upon the works Water-supply works require expert management, and to entrust their control to a man who knows nothing of hydraulics and less about the delicate working of a filter bed is to court disaster, however skilfully and economically the pumping engines may be managed. Again, drainage may be at fault, where a greatly increased quantity of water is brought into a town before adequate means to remove it have been provided." It is at all events desirable to investigate and either confirm or dispel any suspicion which figures may suggest that large measures of drainage and water-supply have not achieved all that was expected of them.

10. In the case of Peshawar City it is not possible to draw any conclusions from the figures in paragraph 43 of the Report under review. The drainage works were completed in 1888 and the water-works four years later, and it is not clear for what quinquennial periods the average annual death rates prior and subsequent to the improvements have been calculated. The figures which were incorporated in paragraph 14 of the Review of the Report for 1897, however, showed that the death-rate from fever for the quinquennial period prior to the completion of the drainage was 19·26; for the period between the completion of the drainage and the completion of the water-supply it rose to 22·57; while for the next period up to and including the year 1897 it fell to 22·37. In 1898 it fell further to 20·72. In the Province generally the rate was 20·35 against 20·57 in 1897: in the Peshawar District alone it was 19·69 against 18·16 in the preceding year.

The rate for dysentery and diarrhoea in Peshawar City fell from 1·9 (for the quinquennial period before 1888) to 1·65 after the completion of the drainage, and to 1·31 for the period after the completion of the water-supply and prior to the year under review. In 1898 the rate was only 1·28, so that the decrease has been well maintained. In the district of Peshawar generally there appears to have been no corresponding fall. The rate for the quinquennial period prior to 1897 was 0·22, for 1897 it was 0·23, and for 1898 the same.

So far as figures show there was no improvement under the head of cholera in Peshawar City after the introduction of the drainage system; but this would hardly have been expected. After the completion of the water-supply, however, the rate fell from 1·40 to 0·76 (for the period ending with 1897), and there were no cases at all in 1898. These results are on the whole encouraging.

11. The good results of drainage are particularly noticeable in the reduction of the mortality from fevers in Ludhiána, Amritsar, Gujránwála and Kohát, and in the case of six so-called rural circles named in the tabular statement in paragraph 43 they are almost phenomenal. All these places show an improvement also under the head of cholera, and most of them under the head of dysentery and diarrhoea too. In the case of Kohát the combined effect of drainage and water-supply have, on the face of the figures, been seen in a reduction of the cholera mortality from 6·5 to nil: but the fact is that there has been no serious epidemic of cholera in the Province since the year before the Kohát water-supply was completed.

12. Cases in which drainage has *prima facie* failed are Siálkot (where the fever mortality has risen from 9·3 to 16·9, though the figure for dysentery and diarrhoea has fallen from 3·5 to 2·8), Jullundur (where the fever rate has risen from 15·9 to 18·0), and Banga (where fever has remained practically stationary, though dysentery and diarrhoea have risen from 2·7 to 3·8). The Lieutenant-Governor will be glad if the Sanitary Board will investigate and report on the circumstances of these three places.

13. In considering the effects of a pure water-supply the Lieutenant-Governor thinks it necessary to leave out of account the figures for fevers in hill stations. Hill stations have a large transient population, and the amount of malaria is affected at least as much by the conditions under which that population lives during the cold weather as by the conditions of their summer residence. The improvement at Simla and Dunera and the deterioration at Dalhousie and Murree, under this head, furnish no reliable evidence of the results of a pure water-supply: and the case of Kálka is probably similar. On the other hand, the absence of improvement under the head of dysentery and diarrhoea at Dalhousie, and the marked increase under these heads in Murree, will call for enquiry if the phenomena continue.

14. The improvement effected by the water-supply in Delhi, Umballa, Lahore and Haripur has been very marked. In Ráwpindi, however (where the water-supply was completed as long ago as 1887), the death-rate from fevers has risen from 16·4 to 22·5, though dysentery and diarrhoea have diminished. Abbottabad also shows a slight deterioration and an improvement under these two heads respectively. The case of Ráwpindi, like those of Siálkot, Jullundur and Banga, merits the attention of the Sanitary Board, and the Lieutenant-Governor will be glad to have the views of that body on the subject.

15. *Quinine sales.*—In paragraph 15 of His Honor's Review on the Sanitary Report for the year 1897 it was reported

Paragraph 52.

that the scheme of selling quinine to the people by Postal agency had failed consequent, among other causes, on its having had to compete with the free distribution of the drug at the dispensaries: it was, however, added that His Honor was unwilling to see this effort to bring quinine within reach of people at remote places abandoned, and that a scheme that would relieve the Postal agency of undue competition was under consideration. This scheme, which comprises the sale of the drug at all Branch Post Offices and Sub-Post Offices at places where there are no public

dispensaries, the free issue of the drug being suspended except at the dispensaries, it only being given there free to those who cannot afford to pay for it, was introduced into the Delhi and Lahore Divisions in the month of March last. The result of this further experimental measure to make the drug readily accessible to the people will not be known until the end of the current year.

16. *Rewards.*—The replies of District Officers on the subject of rewards to village communities for zeal in sanitation

Paragraph 54.

indicate some misapprehension of the suggestion

put forward in Punjab Government Circular, Medical and Sanitary, No. 1480, dated 15th December 1897. It was there remarked that the rewards so far granted from District Funds had taken the shape of the grant of khillats and sanads to selected village headmen and others somewhat on the principle on which rewards are given to individuals who have constructed work of public utility at their own expense ; but that the original proposal of the Sanitary Board had been not for the reward of individuals but of entire villa communities. It was therefore requested that one District Board in each Division should try the experiment of offering to pay a considerable fraction of the revenue demand of the one village in each tahsîl of the district which showed the best results in sanitary improvement in the year 1898. From several districts reports have been received which show that the distinction between rewards to headmen and other prominent individuals and rewards to whole village communities has not been appreciated. Sir Mackworth Young does not doubt that there are many instances in which rewards to prominent individuals are more likely to stimulate activity than any concession to the community as a whole, but he thinks the other experiment should also have a trial in each Division during the current or the coming year, and he commends these remarks to the consideration of Commissioners and Deputy Commissioners. The Sanitary Commissioner should ascertain and report the action taken.

Rewards of Rs. 125 each were given by the District Board of Hoshiárpur to four village communities in that district for attention to sanitation during the year. In no other district were rewards actually given, though in some cases budget provision was made for expenditure under this head, but not utilised owing to the lack of interest displayed in the matter by the rural population. Sir Mackworth Young thinks it would be a good thing if, when offering the reward, the District Board were to lay down in consultation with the Civil Surgeon the points upon which stress would be laid in awarding the prize. The Sanitary Board will be asked to formulate general instructions on this subject, but Civil Surgeons should be at liberty to suggest modifications of detail in order to suit local circumstances.

17. *Sanitary Board.*—The remarks of the Government of India on the

Paragraphs 56 to 58.

work of the Sanitary Board which were recorded in Mr. Fraser's letter No. 4302, dated the 5th of

November 1898, are under Sir Mackworth Young's consideration. At present he awaits the suggestions of the Board. The Board has never discharged other than consultative functions in the Punjab, but the question of extending the scope of its work will now receive attention. The Lieutenant-Governor regrets that the Board did not meet during 1898 and is enquiring why.

18. In conclusion, the Lieutenant-Governor desires to convey his acknowledgments to Lieutenant-Colonel Bamber for his Report and his thanks to the Department for the good work done by it during the year.

ORDER.—Ordered, that a copy of the foregoing Remarks be circulated with the Report and furnished with the usual number of copies of the Report to the Government of India ; also that the Review be published in the *Punjab Government Gazette*.

Ordered also, that a copy be forwarded to the Sanitary Commissioner, Punjab, for information and guidance in regard to the points indicated.

By order of the Hon'ble the Lieutenant-Governor,

H. J. MAYNARD,

Judicial and Genl. Secy. to Govt., Punjab.

Section I.—Meteorology.

No Remarks.

Section II.—European Army.

No Remarks.

Section III.—Native Army.

No Remarks.

Section IV.—Jails.

No Remarks.

ERRATA.

In para. 51, page 23, line 4 below the table, after the word "was" add "Jhang"

In Annual Form No. IV, column 8, under "20 years and 30 years" total of the Province, for "317 males" read "17,317"

In Annual Form No. XI, population of Fázilka, for "7,568" read "7,563"

Appendix A in Delhi District in the Jataula village, column "60 and upwards," read 1 female.

In the same district, in column total of female births for "1,438" read "1,426," and for total births in the same column, instead of "2,959" read "2,949."

In the same Appendix, District Karnal, village Isrána, for "83," No. of female births, read "33."

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Section V.—General Population.

BIRTHS.

1. There were 841,869 births registered in the Province in 1898, giving

Births registered during a birth-rate of 41·0 per *mille* of population. In the year 1898 compared with 1897. preceding the number was 874,623 or 42·6 per *mille*. The mean average birth-rate for the past five years was 41·7 per *mille*. The male births in 1898 were 441,732 and the female 400,137. There has been a decrease in the recorded number of births as compared with 1897 of 32,754. During a year of comparative plenty and in the absence of any unusual epidemic, the number of births might be expected to show an increase instead of a falling off. But the birth-rate of any one year is affected by the influences prevailing during the preceding year. Thus the scarcity of 1897 might account for this decrease.

2. Compared with the other Provinces of India the Punjab again

Punjab birth-rate higher than that of other Provinces takes first place as regards its birth-rate, as will be seen from the figures noted in the following table:—

	<i>Birth-rate per mille.</i>		<i>Birth-rate per mille.</i>
Punjab	... ... ... 41·0	Central Provinces	... ... ... 29·61
Bengal	... ... ... 35·79	Madras	... ... ... 27·4
North-Western Provinces and Oudh	37·35	Bombay	... ... ... 30·94
Assam	... ... ... 29·46		

Districts with high birth-rates arranged in order of sequence. 3. The districts which show a birth-rate of over 40 per *mille*, between 30 and 40 per *mille*, and below 30 per *mille* are given in the following table:—

<i>Birth-rates over 40 per mille.</i>		<i>Birth-rates between 30 and 40.</i>		<i>Birth-rates below 30 per mille.</i>	
1. Gujránwála	... 53·8	1. Hoshiárpur	... 39·1	1. Simla	... ... 21·8
2. Jhang	... 53·4	2. Mooltan	... 39·0	2. Pesháwar	... ... 29·8
3. Gurgáoon	... 53·0	3. Shahpur	... 39·0		
4. Rohtak	... 45·8	4. Gujrát	... 38·1		
5. Ferozepore	... 45·7	5. Montgomery	... 37·8		
6. Amritsar	... 45·1	6. Umballa	... 36·7		
7. Karnál	... 42·8	7. Bannu	... 35·5		
8. Siálkot	... 44·9	8. Muzaffargarh	... 35·1		
9. Lahore	... 44·3	9. Kánpur	... 35·0		
10. Gurdáspu	... 43·5	10. Hazara	... 35·0		
11. Hissár	... 43·2	11. Kohát	... 34·9		
12. Delhi	... 44·9	12. Ráwálpindi	... 34·1		
13. Ludhiána	... 42·6	13. Jhelum	... 33·6		
14. Jullundur	... 42·1	14. D. I. Khan	... 30·6		
		15. D. G. Khan	... 30·6		

Fourteen districts give a birth-rate varying between 53·8 and 42·1, 15 districts had a birth-rate between 30 and 40, while the districts of Simla and Pesháwar showed birth-rates of 21·8 and 29·8, respectively. The low birth-rate of Simla is, as has been noticed in previous reports, due to the preponderance of the male over the female population, and with regard to Pesháwar it may be said that the population being chiefly Muhammadans of the Afghán type, they are most averse to register their births and deaths, female births more particularly.

4. The above table when compared with the statistics of the previous

Registration of births more accurate than previous years. decade, however, affords the satisfactory information that birth registration in the districts is certainly more accurate (it is in some districts even above the normal standard) than it was ten years ago.

With continued zeal and perseverance we have obtained in this Province, at any rate, a fairly accurate system of birth registration on which reliable statistics can be worked, and it is interesting to note that in all the districts of this Province, the births are more numerous than the deaths, except in Dera Ismail Khan, where the deaths exceed the births: in six districts the births exceed the deaths by over 15 per *mille*, in thirteen districts by between 10 and 15, and in the rest by less than 10 per *mille*.

5. The following table shows the birth-rates registered in the principal towns registered in towns and hill sanitaria of the Punjab from 1888 to 1897, together with the average for these ten years, and the birth-rate for 1898 :—

No.	Districts	Towns.	Population according to the Census of 1891	BIRTH-RATE FOR PREVIOUS 10 YEARS FROM 1888 TO 1897.										Average birth-rate for 10 years.	Birth-rate for 1898.
				1588	1889.	1890.	1891	1892	1893	1894	1895.	1896.	1897.	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
1	HISSAR	Hissar	16,554	33	27	32	28	32	45	47	46	43	35	37	33
2		Hánsi	15,190	39	41	46	36	38	32	43	43	42	37	40	43
3		Bhrwáni	35,487	39	38	36	33	35	37	37	35	34	28	35	32
4		Sinsa	16,413	36	42	43	34	41	33	43	40	43	10	40	34
5	ROHTAK	Rohtak	16,191	38	37	35	43	44	45	46	48	41	39	42	48
6		Jhajjar	11,881	37	48	43	45	42	46	47	46	43	42	41	39
7	GURGAON	Rewári	27,934	34	37	38	33	37	41	41	42	36	28	37	29
8		Pálwal	11,227	32	42	49	41	46	51	51	56	53	47	47	47
9	DELHI	Delhi	189,648	37	39	37	36	33	38	41	39	41	11	38	38
10		Sonepat.	12,611	29	11	43	16	40	53	51	41	47	14	44	44
11	KARNAL	Karnál	21,530	30	33	35	35	38	45	49	43	46	50	40	43
12		Kanthal	15,768	39	12	34	45	51	57	57	53	51	48	48	48
13		Pánipat	27,547	33	37	33	31	47	53	51	51	47	43	43	43
14		Shahabad	11,473	24	27	22	38	36	43	35	32	34	10	33	30
15	UMBALLA	Umballa	26,556	40	10	36	39	42	42	43	43	39	41	41	36
16		Jagidhí	13,029	34	32	32	32	36	38	39	32	28	30	33	28
17		Sádhaura	10,443	27	33	31	32	25	31	34	27	52	32	30	26
18	HOHIMIRÉLÉ	Hoshíápur	17,546	38	10	40	38	41	44	38	38	34	37	39	34
19		Tánda and Uimar	11,632	41	52	47	41	40	32	39	30	33	31	39	36
20	JULIUNDUR	Jullundur	50,375	56	57	60	46	46	45	45	43	45	45	49	41
21		Ráhon	10,667	29	31	35	39	36	39	48	36	38	37	37	31
22		Kartápur	10,441				34	38	37	41	30	35	31	36	34
23	LUDHIANA	Ludhiana	46,024	38	40	44	36	40	34	14	13	42	37	40	31
24		Jagrón	18,116	46	47	47	43	46	46	49	47	44	47	46	43
25	FEROZEPORÉ	Ferozepore	25,387	41	35	37	33	33	25	36	37	37	38	35	26
26	MOOLTAN	Mooltan	64,263	18	48	46	43	42	38	18	18	48	49	46	42
27	JHANG	Maghiana	13,866	48	48	49	41	38	41	54	51	53	51	47	45
28		Chamfot	13,476	50	52	51	40	10	38	51	57	49	56	48	54
29	LAHORE	Lahore	159,597	29	81	28	27	34	31	34	35	36	35	32	32
30		Kasúr	20,290	42	42	38	39	44	36	39	40	45	42	41	40
31		Chúníán	10,339	.			34	44	41	58	56	58	60	50	54
32	AMRITSAR	Amritsar	135,401	35	40	39	39	43	38	45	40	45	43	41	41
33	GURDASPUR	Batála ..	27,223	45	53	48	48	43	43	10	51	38	48	42	42
34	SIALKOT	Sialkot ..	33,965	43	43	43	43	42	49	49	54	56	56	49	53
35	GUJRAT	Gujrát ..	17,671	39	43	32	26	50	38	47	42	46	50	41	45
36		Jálálpur ..	11,065	39	43	40	34	49	38	48	49	45	44	43	40
37	GUJRANWALA.	Gujránwála ..	25,892	42	42	45	30	44	35	44	45	45	41	41	37
38		Wazirabad ..	15,786	32	37	10	37	46	32	40	41	45	52	40	39
39	SHAHPUR	Bhera ..	17,428	53	55	49	42	41	36	45	43	42	46	45	37
40	JHELUM	Pind Dádán Khan	15,055	28	27	26	36	38	32	38	37	36	35	33	27
41	RAWALPINDI	Ráwálpindi	38,334	41	32	34	29	31	21	35	34	34	31	33	26
42	PESHAWAR	Pesháwar	63,079	31	28	35	32	31	30	33	36	39	33	33	29
43	KOHAT	Kohát ..	14,347	27	31	34	26	34	24	30	30	36	36	31	26
44	D. I. KHAN	Dera Ismail Khan	21,573	26	27	28	36	41	41	17	48	51	67	41	33
45	D. G. KHAN	Dera Ghází Khan	23,899	36	29	32	29	36	28	35	37	36	37	34	21
	MEAN .. .		1,412,775	37	39	39	36	39	37	42	41	42	41	39	37
	Hill Sanitaria.														
	Simla .. .		13,279	11	12	13	13	15	18	18	20	17	20	16	22
	Dharmásala .. .		2,775	28	28	25	27	32	33	37	43	41	41	34	42
	Dalhousie .. .		807	5	9	10	2	26	26	27	25	29	22	18	21
	Murree .. .		1,459	11	7	8	11	21	16	17	21	29	31	17	28

It will be seen from the above statement that the towns that have registered the highest average birth-rates are Chunián (50) per *mille*, Jullundur (49), Siálkot (49), Kaithal (48), Chiniot (48), Palwal (47), Maghiána (47), Jagráon (46), Mooltan (46), Batálá (45), Bhera (45), Jhajjar (44), Sonepat (44).

The towns that show a birth-rate considerably below the average are Sádhaura (30), Kohát (31), Lahore (32), Sháhabad (33), Jagádhri (33), Pind Dádan Khan (33), Ráwlpindi (33), Pesháwar (33), Dera Gházi Khan (34). The low birth-rate in these towns is undoubtedly due, to a very great extent, to defective registration. But there is another cause that partly accounts for the low rates. In some of our towns there is a large preponderance of the male over the female population. Correcting the male population in the towns according to the proportion which it bears to the female population in the Province generally, the difference in the recorded birth-rate and the birth-rate calculated on the corrected population is most marked in the towns of Ráwlpindi and Lahore, in which the corrected ratios are 34 and 36 as compared with the recorded rates for 1898 of 26 and 32. In the hill sanitaria, in which the male population considerably exceeds the female, the ratios on the corrected population were Simla 39, Dhármásala 58, Dalhousie 30 and Murree 38, as compared with the recorded rates of 22, 42, 21 and 28, respectively. There is another point which must be borne in mind. The population on which our ratios are calculated is according to the census of 1891, or nearly eight years old. As a new census will take place in a couple of years (1901), I have not thought it necessary to give a statement showing the birth and death-rates for each town and rural circle separately calculated on the estimated population, as is done in England, or to make any criticism on the accuracy of the figures in which the birth-rate has been calculated for the present and the preceding years, but I may remark that during the last decennium, and that is the only decennium from which an increase in the population of the towns can be estimated, there was an increase of nearly 9 per cent., so that an increase of 7 per cent. over the recorded ratios would probably represent the true figures.

With the view to find out the proportion of children born dead according to sexes, I had a statement prepared showing this information. As the still-births are not included in our returns in accordance with the orders of the Government of India, sufficient care has not been taken by the Registration Moharrirs in any of the districts to accurately record the information. The attention of Civil Surgeons has been drawn to this matter, as an unusually small rate of male as compared with the female still-births would furnish a clue to infanticide, in those places where this practice still prevails.

DEATHS.

6. There were 638,124 deaths registered in the Province during the year 1898. In 1897 638,227 deaths or only 103 more than in 1898 Number of deaths. were recorded, the death-rate for the two years being exactly the same, *viz.*, 31·05. Of the total deaths registered 330,018 were males and 308,106 females against 326,924 and 311,303, respectively, in the previous year.

Punjab death-rate compared with that of other Provinces.

7. The ratios of mortality recorded in other Provinces of India during the year 1898 appear in the following table along with the ratio of this Province :—

Bombay 29·16	Bengal 26·57
Madras 21·0	North-Western Provinces and Oudh 27·38
Central Provinces ... 23·30	Punjab 31·05
Assam 36·15	

8. In 1898 the death-rates of males per 1,000 males living was 29·9 and of females per 1,000 females living 32·4; against 29·6 and 32·7 in 1897. For every 100 females who died 107·1 deaths among males were registered. These proportions, however, vary considerably, the excess of male deaths over females being most marked in Simla, 143·6, in Pesháwar, 128·8 and in Dera Gházi Khan 124·5. As a comparison it may be stated that the rates in England and Wales during the 10 years, ending 1885 to 1894, were 112 deaths of males to every 100 deaths of females.

The high and low death-rates of some of the towns. 9. In the following table are shown those districts which had death-rates of 30 and over per *mille* and those having rates of under 30:—

<i>Districts with death-rates of 30 and over.</i>				<i>Districts with death-rates below 30.</i>			
Dera Ismail Khan	...	...	40·11	Ferozepore	...	...	29·97
Jhang	...	...	39·39	Jhelum	...	...	29·93
Karnál	...	...	37·92	Rohtak	...	...	29·17
Gujránwála	...	...	36·85	Mooltan	...	...	28·56
Gurgáoñ	...	...	36·53	Hoshiárpur	...	...	28·05
Amritsar	...	...	33·91	Dera Gházi Khan	...	...	27·91
Delhi	...	...	33·26	Hissár	...	...	27·71
Siálkot	...	...	33·17	Gujrát	...	...	27·67
Bannu	...	...	32·95	Shahpur	...	...	26·92
Gurdáspur	...	...	32·73	Pesháwar	...	...	23·37
Ludhiána	...	...	32·31	Simla	...	...	21·56
Lahore	...	...	32·17	Hazára	...	...	21·43
Kohát	...	...	31·21	Montgomery	...	...	21·27
Ráwalpindi	...	...	30·86				
Muzaffargarh	...	...	30·72				
Umballí	...	...	30·62				
Jullundu;	...	...	30·61				
Kángra	...	...	30·04				

It will be seen from the above statement that the most unhealthy districts in 1898 were Dera Ismail Khan (40·11), Jhang (39·39), Karnál (37·92), Gujránwála (36·85) and Gurgáoñ (36·53).

10. The subjoined table shows the death-rate recorded in the principal towns and hill sanitaria from 1888 to 1897; the average death-rates in principal towns for these ten years and the death-rates for 1898—

No.	Districts.	Towns.	Population according to the census of 1881. R.S.D.	DEATH-RATE FOR 10 YEARS.										Average death-rate for 10 years.	Death-rate for 1888.
				1888.	1889.	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
1	HISAR	Hissár ..	16,554	30	29	33	25	65	41	43	38	42	67	41	37
2		Hánsi ..	15,190	30	28	54	33	65	30	30	29	26	35	36	28
3		Bhiwáni ..	35,487	32	41	54	42	55	35	35	36	46	57	43	32
4	ROHTAK	Sirsa ..	16,415	39	37	40	30	85	26	27	29	31	64	41	35
5		Rohat ..	16,191	28	27	35	40	40	32	35	31	38	31	34	26
6		Jhajjar ..	11,851	25	28	28	36	36	32	27	28	37	31	31	25
7	GURGAON	Rewári ..	27,931	27	34	30	29	43	27	37	31	34	30	22	22
8		Páwal ..	11,327	33	47	46	40	49	35	45	37	41	30	44	45
9	DEHLI	Delhi ..	159,648	38	38	39	45	49	31	41	43	40	34	40	34
10		Sonepat ..	12,611	42	35	65	49	56	33	18	42	41	25	44	29
11	KARNAL	Karnál ..	21,539	33	36	55	47	52	36	50	42	44	37	43	42
12		Kaithal ..	15,708	25	27	40	27	56	48	53	40	49	44	41	41
13		Pánipat ..	27,547	29	25	54	37	36	31	51	40	38	37	38	37
14	UMBALLA	Shahab ..	11,473	19	18	56	33	42	26	40	30	25	33	32	23
15		Umballa ..	20,856	35	33	72	30	45	30	40	41	31	28	39	27
16		Jagádhri ..	13,029	30	32	40	30	38	34	57	50	38	38	39	28
17	HOSHIARPUR	Sadhaura ..	10,445	25	27	54	50	48	26	32	28	24	21	34	24
18		Hoshiárpur ..	17,546	32	37	46	37	56	47	51	37	32	36	41	35
19		Tánda and Urmar ..	11,632	37	36	46	28	90	51	59	31	30	25	44	34
20	JULLUNDER	Jullandur ..	50,375	33	40	41	26	43	29	52	30	29	30	36	32
21		Ráhon ..	10,607	37	31	39	36	56	32	45	32	29	33	37	30
22		Kartápur ..	10,441	..	..	..	27	36	31	103	39	27	21	41	28
23	LUDHIANA	Ludhiana ..	46,024	32	29	39	33	61	37	40	31	34	46	38	34
24		Jazráon ..	18,116	49	46	17	46	44	30	33	31	39	33	40	29
25	FIROZEPORÉ	Firozepore ..	25,337	40	37	45	27	58	30	32	28	31	38	37	28
26	MOOLTAN	Mooltan ..	64,263	31	40	37	28	55	30	30	30	29	23	35	29
27	JHANG	Maghíana ..	13,866	36	34	38	36	67	33	30	33	33	36	38	42
28		Chimfot ..	13,476	32	36	39	26	42	29	33	30	37	33	34	42
29	LAHORE	Lahore ..	159,597	29	37	43	31	54	37	33	30	31	29	35	34
30		Kasúr ..	20,290	43	48	49	28	55	58	56	36	42	26	44	31
31		Chuníáu ..	10,339	..	..	..	24	66	34	30	30	47	45	39	46
32	AMRITSAR	Amritsar ..	135,401	47	41	60	42	66	46	60	41	43	36	48	40
33	GURDASPUR	Batála ..	27,223	37	35	48	26	61	33	53	28	29	27	41	30
34	SIÁLKOT	Siálkot ..	33,965	27	30	56	37	46	34	45	35	39	33	38	44
35	GUJRAT	Gujrát ..	17,671	30	25	129	28	51	20	37	26	32	30	42	37
36		Jalálpur ..	11,065	31	33	75	35	55	35	47	26	32	25	39	42
37	GUJRANWALA	Gujránwála ..	25,892	29	32	60	25	40	29	29	29	27	26	33	25
38		Wazírabad ..	15,786	28	36	84	37	52	34	41	31	29	40	41	49
39	SHAHPUR	Bhera ..	17,428	40	38	40	30	73	39	25	21	36	34	38	30
40	JHELUM	Pind Dádán Khan ..	15,053	39	41	35	34	66	38	37	32	31	45	40	35
41	RAWALPINDI	Ráwalpindi ..	38,334	47	50	47	31	48	32	33	40	45	44	42	38
42	PESHAWAR	Pesháwar ..	63,079	36	40	34	46	56	33	33	35	35	27	38	30
43	KOHAT	Kohát ..	14,347	45	29	33	35	63	28	29	33	39	36	36	29
44	D. I. KHAN	Dera Ismail Khan ..	21,573	25	24	30	34	78	38	51	39	36	75	43	54
45	D. G. KHAN	Dera Ghází Khan ..	23,899	28	24	26	27	48	26	32	33	25	46	32	30
		MEAN ..	1,412,775	36	37	49	36	54	35	42	35	36	36	40	34

No.	Districts	Towns.	Population according to the census of 1891	DEATH-RATE FOR 10 YEARS.										Average birth-rate for 10 years.	Birth-rate for 1898.
				1888	1889	1890	1891	1892	1893	1894	1895	1896	1897		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Hill Sanatoria															
	Simla		13,279	26	25	13	26	28	32	26	32	28	23	29	27
	Dharmshala		2,778	21	20	40	31	30	22	33	37	51	44	33	37
	Dalhousie		807	21	16	29	22	21	29	30	22	27	24	24	52
	Muriere		1,459	51	16	21	31	34	32	30	29	42	29	32	33

The death-rate of the 45 principal towns taken together was 34 in 1898 against 36 in the two preceding years and an average of 40 for the decennium ending 1897.

Amritsar has an average of 48 per 1,000, or the highest death-rate of all the towns; Palwal, Sonepat, Tanda and Urmor and Kasur come next with a death-rate of 44 per 1,000.

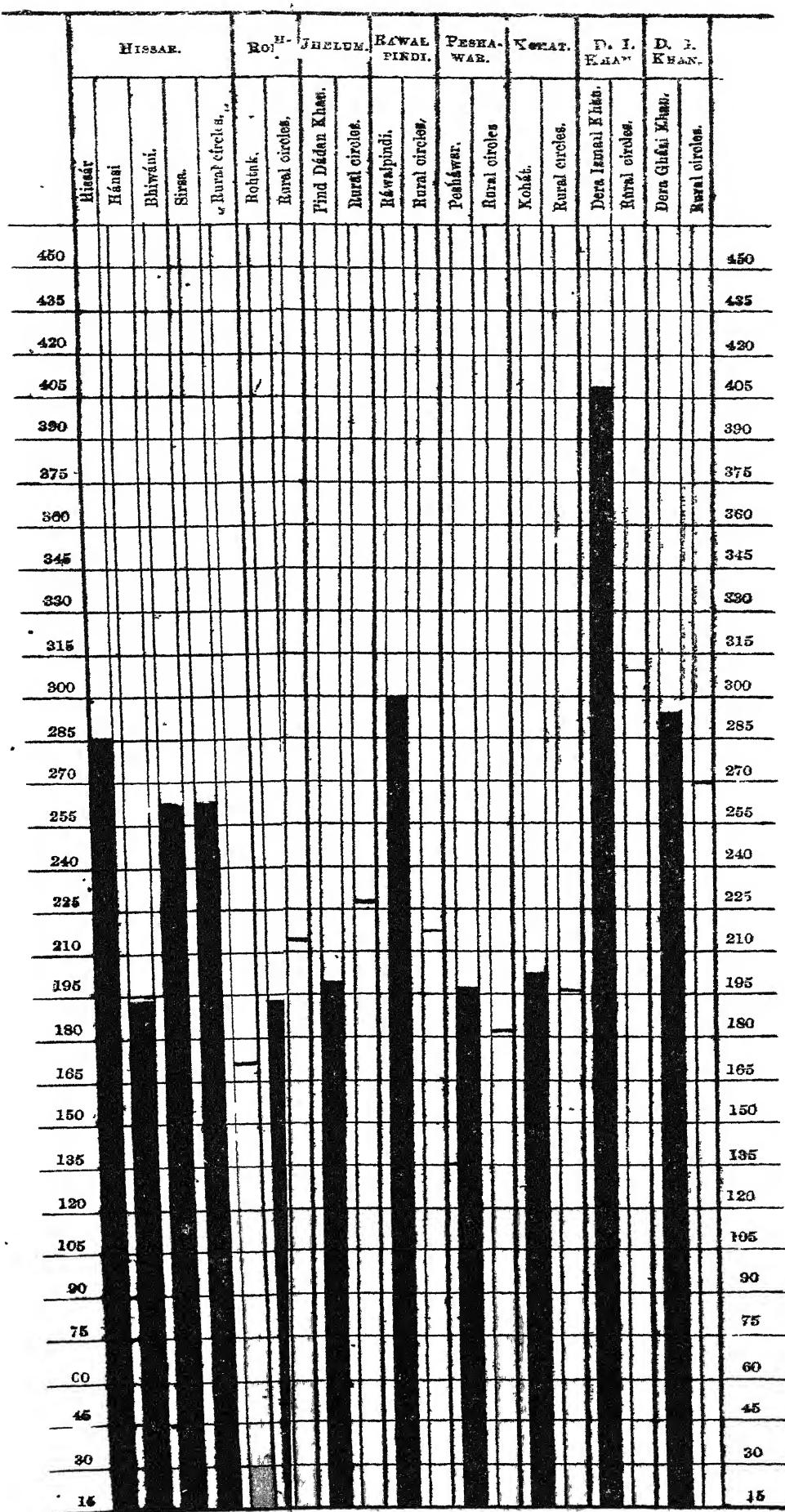
In 15 others, viz., Hissar, Bhiwani, Sirsa, Delhi, Kainul, Kaithal, Hoshiarpur, Kartarpur, Jagraon, Batala, Gujrati, Wazirabad, Pind Didan Khan, Rawalpindi and Dera Ismail Khan the rates vary between 40 and 43 per 1,000. Annual Form No. XI shows the chief sanitary defects in these towns and the remedial measures adopted. It may be noted here that in Amritsar, the most unhealthy town, the water-supply scheme is still under consideration, but in a very short time this town will be supplied with pure water which will, it is to be hoped, tend to lessen the high mortality.

Mortality in different age periods

11. The following table shows the death-rates according to different age periods per 1,000 living:—

Ages.								Males	Females
Under one year	...	...	...	...	...	...	...	215.19	210.09
1 and under 5 years	...	...	...	...	...	...	...	63.04	68.57
5 "	10 "	...	...	...	...	...	...	10.46	11.66
10 "	15 "	...	...	...	...	...	...	6.80	8.48
15 "	20 "	...	...	...	...	...	...	7.25	9.34
20 "	30 "	...	...	...	...	...	...	9.38	10.94
30 "	40 "	...	...	...	...	...	...	13.06	14.56
40 "	50 "	...	...	...	...	...	...	19.48	17.98
50 "	60 "	...	...	...	...	...	...	29.37	26.88
60 and upwards	...	...	...	...	...	...	...	87.65	92.00

12. In the attached chart the death-rates of infants under one year of age per 1,000 of births in towns in 1898 are contrasted and rural circles. Infant mortality in towns with those registered in the rural circles. In England and Wales the death-rate of infants under one year of age to 1,000 births registered in decennium ending in 1894 was 146, and the general death-rate for the same period was 19 per 1,000 of population. In the Punjab for the 10 years ending in 1898 the infant death-rate was 234, and the general death-rate of the Province 34 per *mille* of population. Although these figures show how unhealthy this Province is compared with England and Wales they, nevertheless, show that the proportion between the infant and general death-rates of these two countries is very nearly the same—a point which goes to show how steadily the system of registration is improving in this Province.



NOTE.—Black lines indicate Rural circles.

In many towns the proportion of infant mortality is much higher than in the country. This can be easily accounted for by the fact that there is less overcrowding and defective ventilation in the rural than in the urban areas. The chart further shows those towns in which an abnormal death-rate among infants goes to swell the total death-rate of the urban population. In the following towns the death-rate among infants was excessively high :—

Dera Ismail Khan	...	...	400	Karnál	...	...	...	...	327
Wazírahád	...	...	374	Hessiárpur	...	...	...	...	319
Maghiána	...	...	364	Chúnián	...	...	...	...	306
Kaithal	...	...	331	Ráwalpindi	...	...	...	...	300

In the rural circles the infant death-rates were very high in—

Dera Ismail Khan	...	...	308	Jullundur	...	...	...	...	252
Dera Gházi Khan	...	...	270	Karnál	...	...	...	...	243
Ludhiána	...	...	265	Mohélian	...	...	...	...	241
Amritsar	...	...	260						

In the 45 principal towns out of 52,118 total births registered in 1898, no less than 12,766 infants died under one year of age, showing a death-rate of 245 per 1,000 of births. In the rural circles the death-rate of infants in 1898 was 226.

13. Annual Form No. V shows the death-rates registered according to Deaths according to classes. In the following table the rates are contrasted classes. with those of the previous year :—

		1898.	1897.
		—	—
Muhammadans	31.19
Hindús	30.86
Native Christians	19.54
Other classes	79.61
			31.24
			30.78
			17.25
			114.55

14. There is an increase in the death-rate of Native Christians. Registration among Native Christians. The increase was most marked in the district of Gur-dáspur, in which the death-rate rose from 19.82 to 30.45 per 1,000, showing what the real figures ought to be. There is no reason why Native Christians should be healthier than other natives.

The high death-rate under "other classes" is due to an error in the classification of population as noticed in previous reports.

15. There were 151 births and 88 deaths registered among the European Registration among Europeans and Eurasian population, showing a birth-rate of 18.1 and a death-rate of 10.55 per 1,000 of population. During the previous year the birth-rate was 14.39 and the death-rate 9.11. The figures for 1898 show that greater attention has been paid by the European population to the registration of their births and deaths than in previous years. These figures are still probably far below what they ought to be.

16. The vital statistics of cantonments are given as a supplement to Annual Vital statistics of the Form No. VI. Registration is so defective in these cantonments that any conclusions drawn from them would be useless. In 1898 there was a birth-rate of only 9 registered in the cantonments and a death-rate of 15 per 1,000 of population. There were 30 deaths registered from cholera in the cantonment of Umballa.

17. The following table gives the results of the inspection of birth and death registers by Divisional Inspectors, Vaccinators, Divisional Inspectors, Vaccinators, Tahsildárs and Náib-Tahsildárs during the year 1898 :—

DIVISIONS.	DIVISIONAL INSPECTORS.				VACCINATORS.				TAHSILDARS AND NÁIB-TAHSILDARS.			
	Number of entries of births examined.	Number of omissions of births detected.	Number of entries of deaths examined.	Number of omissions of deaths detected.	Number of entries of births examined.	Number of omissions of births detected.	Number of entries of deaths examined.	Number of omissions of deaths detected.	Number of entries of births examined.	Number of omissions of births detected.	Number of entries of deaths examined.	Number of omissions of deaths detected.
Delhi	12,306	877	9,702	451	110,986	2,470	90,625	1,691	8,233	131	1,673	117
Jullundur	59,094	1,832	44,212	815	116,399	684	81,258	238	16,322	272	13,665	168
Lahore	No Divisional Inspector.				254,283	2,233	172,191	770	346	80	378	70
Ráwálpindi	22,851	879	15,410	453	101,751	2,110	68,607	1,106	Not given	159	Not given.	132
Pesháwar	9,087	1,476	7,304	864	14,057	661	11,254	83	3,011	65	1,313	47
Deraját	25,089	1,450	29,344	8,192	31,570	2,793	27,015	879	2,965	160	2,901	141
Total	128,387	6,514	106,002	5,775	629,346	10,951	445,950	4,750	30,927	867	22,960	670

It will be seen that in 128,387 entries of births and 106,002 of deaths checked by the Inspectors, they found, respectively, 6,514 and 5,775 omissions or 51 omissions in births and 54 in deaths in every 1,000 entries examined. The Vaccinators checked 629,346 entries of births and 445,950 of deaths, and discovered 10,951 omissions of births and 4,750 of deaths at the rate of 17 omissions of births and 11 of deaths per 1,000 entries checked. The rates of omissions detected by Tahsildárs and Náib-Tahsildárs were 17 and 15, taking the figures of only those districts in which the number of entries checked by these officers was given.

18. The following statement shows the working of the municipal bye-laws in respect to the fines inflicted for neglect to register births and deaths :—

Working of the municipal bye-laws regarding the registration of births and deaths for the year 1898.

DISTRICTS.	Name of Municipal Towns.	Number of persons fined for neglecting to register births.	Number of persons fined for neglecting to register deaths.	Aggregate of fines inflicted.
Hissár	Hánsi	3	..	Rs. a. p. 10 0 0
Rohtak	Rohtak	20	..	15 4 0
Beri	..	2	..	1 0 0
Gurgáon	Hodal	16	7	13 15 0
Delhi	Delhi	1	11	1 8 0
Sonepat	..	6	..	6 0 0
Karnál	Pánipat	1	1	7 0 0
Umballa	Umballa	..	1	1 0 0
Kángra	Kángra ..	..	1	1 0 0
Hoshiárpur	Anandpur	..	3	1 0 0
Jullundur	Jullundur	1	4	4 0 0
Ladhiána	Jagráo	3	1	2 8 0
Mooltan	Rákot	2	..	1 12 0
Mooltan	Mooltan	1	..	1 4 0
Shujábád	Shujábád	1	..	1 0 0
Jhang	Chinot	..	1	5 0 0
Lahore	Lahore	2	6	7 0 0
Ráwálpindi	Atrock	..	1	0 4 0
Pesháwar	Pesháwar	2	..	4 0 0
Bannu	Kálábágh	2	..	2 0 0
Dera Ismail Khan	Dera Ismail Khan	1	1	0 5 0
Dera Ghází Khan	Dera Ghází Khan	2	..	1 0 0
Jámpur	..	1	..	1 0 0
Total		67	38	88 12 0

Out of 150 municipal towns there were only 23 in which fines for neglecting to register births and deaths were imposed. The number of persons fined was 105 and the amount of fines inflicted was Rs. 88-12-0. During the previous year, the number of persons fined was 59 and the fines inflicted amounted to Rs. 44-6-0. The fines inflicted in Rohtak, Hodal, Hânsi and Panipát were very high.

Section VI.—Chief Diseases.

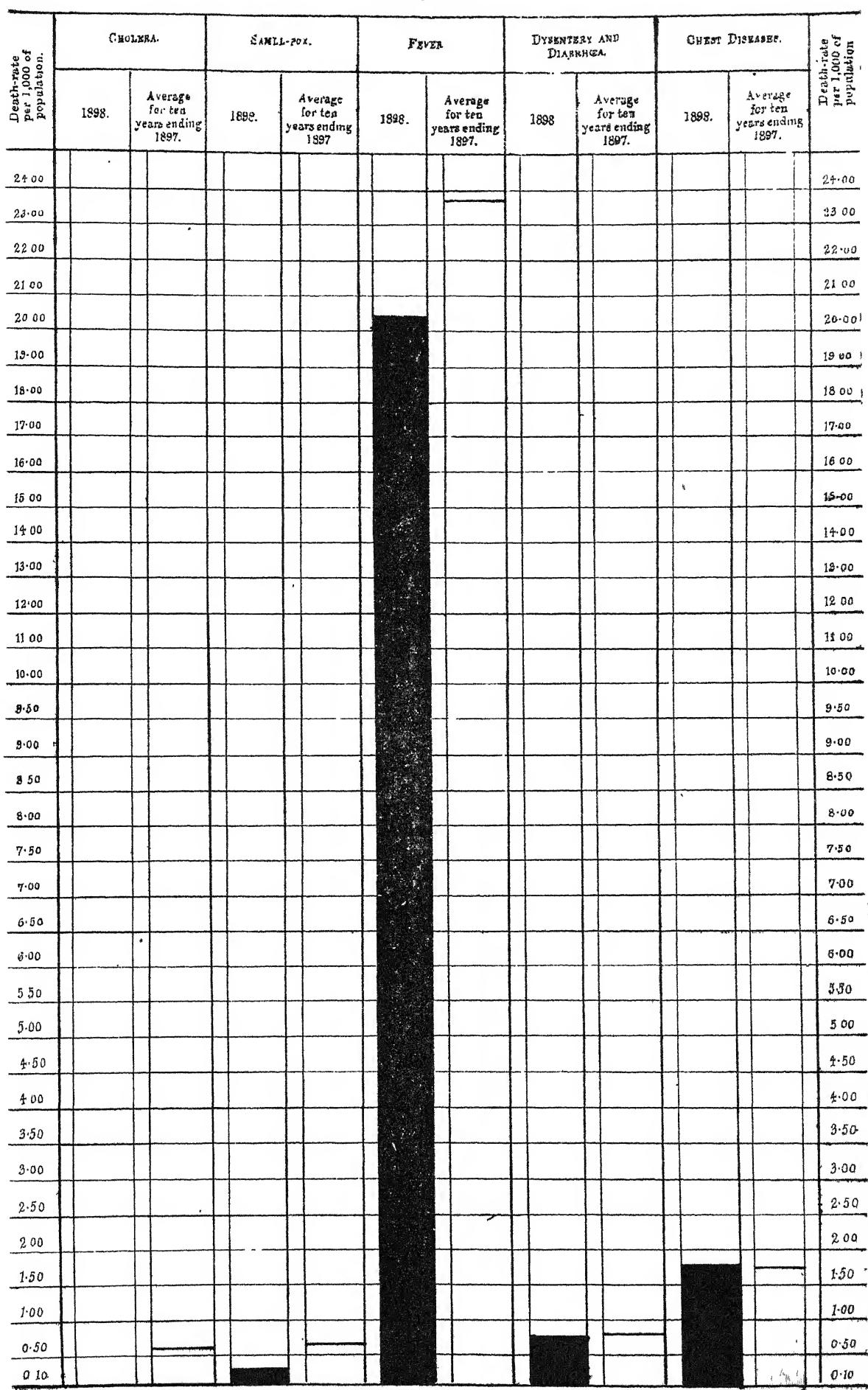
Deaths from different diseases, 1867 to 1898.

19. In the following table the death-rates from the principal diseases from the year 1867 to 1898 are shown:—

YEAR.	1	2	3	4	5	6	7
	DEATHS PER 1,000 OF POPULATION FROM—						
		Cholera.	Small-pox	Fevers.	Dysentery and diarrhoea.	Injuries.	All other causes
1867	...	2.73	1.35	11.00	not given	0.26	4.37
1868	...	0.03	1.36	8.66	1.02	0.27	2.81
1869	...	0.53	3.05	15.64	1.77	0.29	2.87
1870	...	0.03	1.55	15.74	1.56	0.26	3.10
1871	...	0.02	1.46	12.21	1.24	0.25	5.60
1872	...	0.50	1.36	15.14	1.33	0.25	6.04
1873	.	0.01	1.47	12.57	1.12	0.27	4.95
1874	...	0.004	0.69	10.90	0.94	0.23	5.30
1875	...	0.86	0.78	16.00	1.57	0.30	5.55
1876	...	0.83	0.59	20.09	1.53	0.27	5.55
1877	...	0.001	0.70	12.54	1.01	0.29	5.52
1878	...	0.01	2.30	25.19	1.83	0.33	6.29
1879	...	1.49	2.83	27.54	1.69	0.30	5.18
1880	...	0.01	0.52	18.74	1.18	0.32	6.25
1881	...	0.30	0.38	20.32	0.99	0.32	7.41
1882	...	0.002	0.34	18.40	0.85	0.30	6.90
1883	...	0.01	0.64	16.25	0.77	0.28	7.29
1884	...	0.03	0.87	24.71	0.97	0.29	8.16
1885	...	0.10	0.40	18.40	0.94	0.29	6.77
1886	...	0.0006	0.57	17.85	0.95	0.33	6.91
1887	...	0.47	0.87	23.78	1.30	0.32	7.57
1888	...	0.79	0.90	20.16	0.99	0.32	6.73
1889	...	0.15	0.42	22.75	0.96	0.34	7.00
1890	...	0.18	0.47	36.75	0.91	0.30	8.25
1891	...	0.49	0.17	21.52	0.59	0.29	6.08
1892	...	3.70	0.54	34.83	1.06	0.32	9.03
1893	...	0.03	0.20	18.95	0.79	0.35	7.81
1894	...	0.005	0.30	25.07	0.87	0.34	9.94
1895	...	0.03	0.41	19.08	0.76	0.33	8.69
1896	...	0.25	2.19	19.15	0.68	0.35	8.92
1897	...	0.03	0.78	20.57	0.77	0.35	8.54
1898	0.24	20.35	0.77	0.36	9.33

* Up to the year 1890 deaths were registered under the general head "Bowel-complaints."

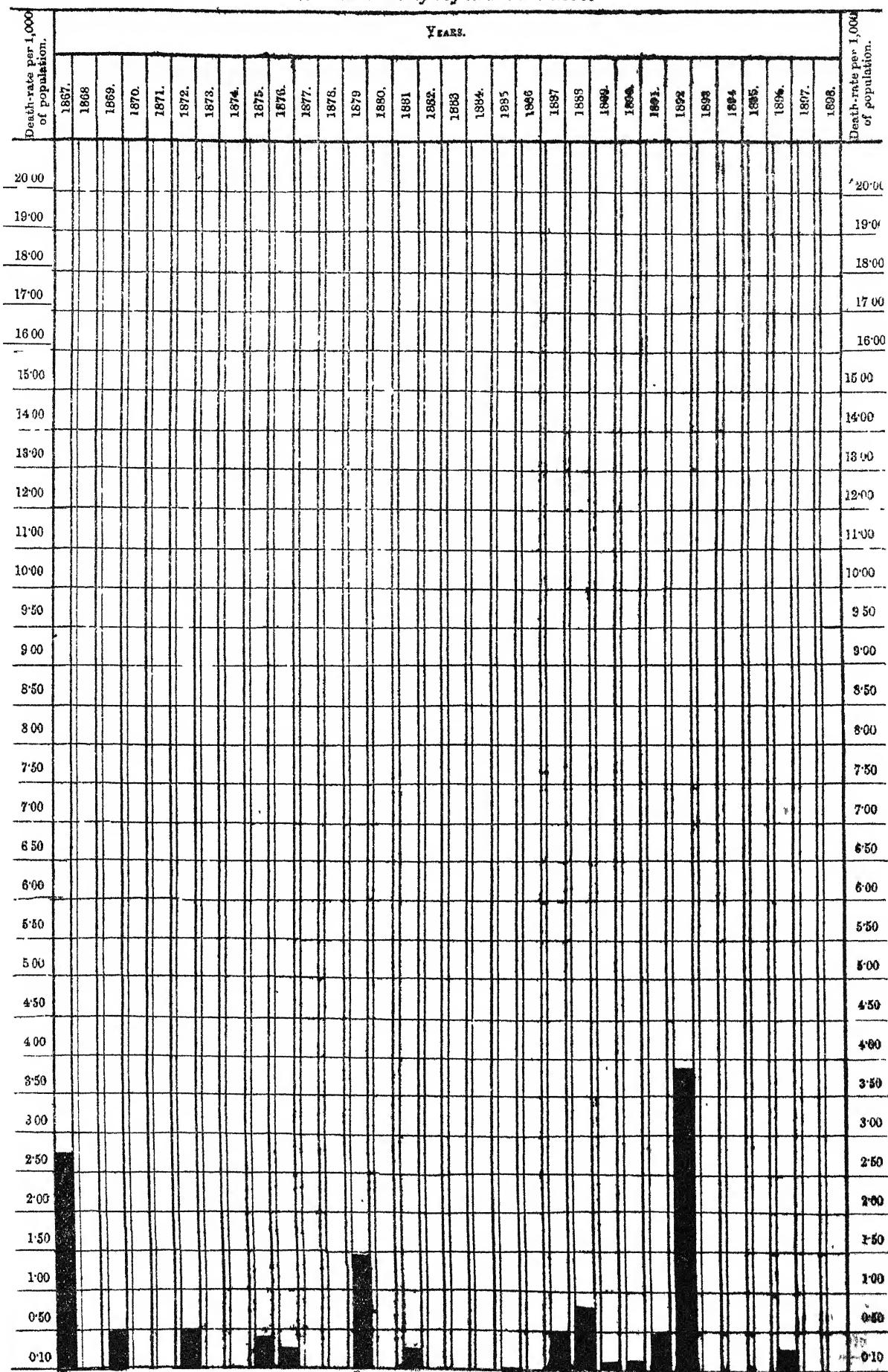
ending 1897.



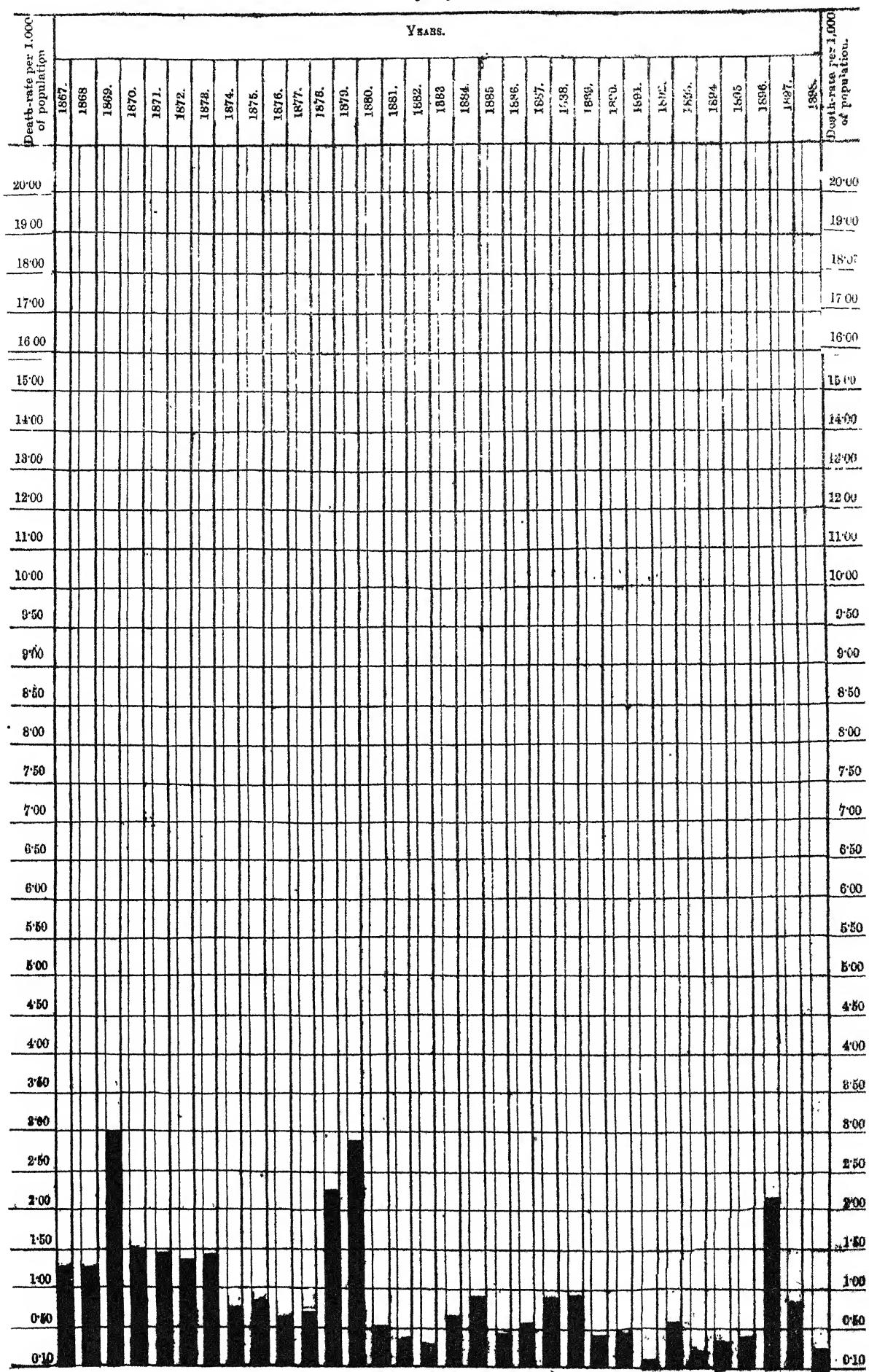
Red lines indicate the average for ten years ending 1897.

CHART.

Showing the rise and fall of Cholera Mortality in the Punjab Province from 1867 to commencement of registration to 1898.



Showing the rise and fall of Small-pox Mortality in the Punjab Province from 1867 to commencement of registration to 1898.



20. The first of the three preceding charts shows, at a glance, the Chart showing deaths rate of mortality from cholera, small-pox, fevers, dysentery from different causes. and diarrhoea and chest diseases, for the year 1893 and the average annual death-rate for the 10 years ending 1897.

As regards epidemic diseases this year is better than the average for ten years; fever was also less prevalent, but dysentery and diarrhoea and chest diseases are just equal to the average for the last ten years. We see at once how the mortality from fever dwarfs all the others. Most probably a good deal of pneumonia and tubercle is put down as fever. This year I have had charts prepared which show much more readily the difference in mortality caused by different diseases and also the rise and fall in the death-rates of each disease for each year since registration was instituted.

PLAUE.

21. There were 1,563 deaths registered from plague in the district of Jullundur and 388 in that of Hoshiárpur in 1898. As a detailed report on plague drawn up by Captain C. H. James, I. M. S., has been published and reviewed by Government, it is needless to make any comments on the subject in this report. .

CHOLERA.

22. The Province was practically free from cholera during 1898. With the exception of the 30 deaths that occurred from cholera in Umballa cantonment there were only three deaths recorded, *viz.*, two in the Gurgáoñ district and one in the Umballa district. The prescribed cholera map is omitted from this report as it would be blank, but I give a chart which shows at a glance the rise and fall of cholera mortality during the past 32 years. The years of very high mortality were 1867, 1879, and 1892, and the rise and fall of the disease in the intervening years of these three great epidemics is exhibited in the chart.

This chart clearly indicates that severe epidemics have occurred at intervals of 11 to 12 years. These years of high mortality are those in which the great Hurdwár Kumb fairs took place.

SMALL-POX.

23. There were 4,998 deaths from small-pox during 1898 against 16,077 in the previous year. In this chart I should have liked to Deaths from small-pox. have been able to give, in juxtaposition, the best vaccinated districts with the small-pox mortality so as to show how entirely the disease may be stamped out by efficient vaccination, but it would entail considerable enlargement of the chart and the subject comes more directly under the head of vaccination, and will therefore be noted fully in the Vaccination Report for 1898-99.

In looking at this chart one sees at a glance that small-pox was much more prevalent from 1867 to 1879 than it was from 1879 to 1898. That is, if we take the sum of the black columns for the first period from 1867 to 1879, and the sum of the black columns from 1880 to 1898, we find the first is nearly twice as long as the last, though the first is for a period of thirteen years and the second for a period of nineteen years. This latter period almost

coincides with the institution of the vaccination department as it is at the present time.

Districts with high and low mortality.

24. The districts with high and low small-pox mortality are shown below:—

HIGH MORTALITY.						LOW MORTALITY.					
<i>Districts.</i>	<i>Deaths.</i>	<i>Districts.</i>	<i>Deaths</i>	<i>Districts.</i>	<i>Deaths.</i>	<i>Districts.</i>	<i>Deaths.</i>	<i>Districts.</i>	<i>Deaths.</i>	<i>Districts.</i>	<i>Deaths.</i>
Umballa ...	... 863	Simla ...	... ...	Kángra ...	... ...	Bannu ...	... ...	Rohtak ...	... ...	Gujránwála ...	... ...
Siálkot ...	... 615	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	Shahpur ...	... ...
Karnál ...	... 338	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	Gujrát ...	... ...
Amritsar ...	... 332	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	Jhang ...	... ...
Ferozepore ...	... 329	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	Mooltan ...	... ...
Lahore ...	... 324	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...
Montgomery ...	... 273	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...
Hoshiárpur ...	... 262	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...	... ...

25. In the 150 municipal towns 432 deaths from small-pox were recorded, showing a ratio of 0·21 per 1,000 of population. High death rates from small-pox in municipal towns. The highest death-rates (*vide* annual Form No. VI, towns) were registered in the following towns:—

<i>Districts.</i>	<i>Towns.</i>	<i>Death-rates.</i>
DELHI ...	Farídabad ...	... 4·22 per mille.
HOSHIARPUR ...	Tánda and Urmár ...	... 4·21 ,,
Ditto ...	Garhdíwála ...	... 2·97 ,,
AMRITSAR ...	Majitha ...	... 2·65 ,,
SIALKOR ...	Pásrúr ...	... 2·17 ,,
MONTGOMERY ...	Pákpatan ...	... 1·99 ,,
SIAKOT ...	Zafarwál ...	... 1·63 ,,
FEROZEPORE ...	Zira ...	... 1·61 ,,
GURGAON ...	Hodal ...	... 1·15 ,,
GURDASPUR ...	Batála ...	... 1·10 ,,

FEVERS.

26. The accompanying chart shows the mortality registered from fevers year by year since 1867 up to the year under review. It will be seen that the mortality was much less from that year up to 1877. The only cause for this can be that a great number of deaths in those eleven years were never registered.

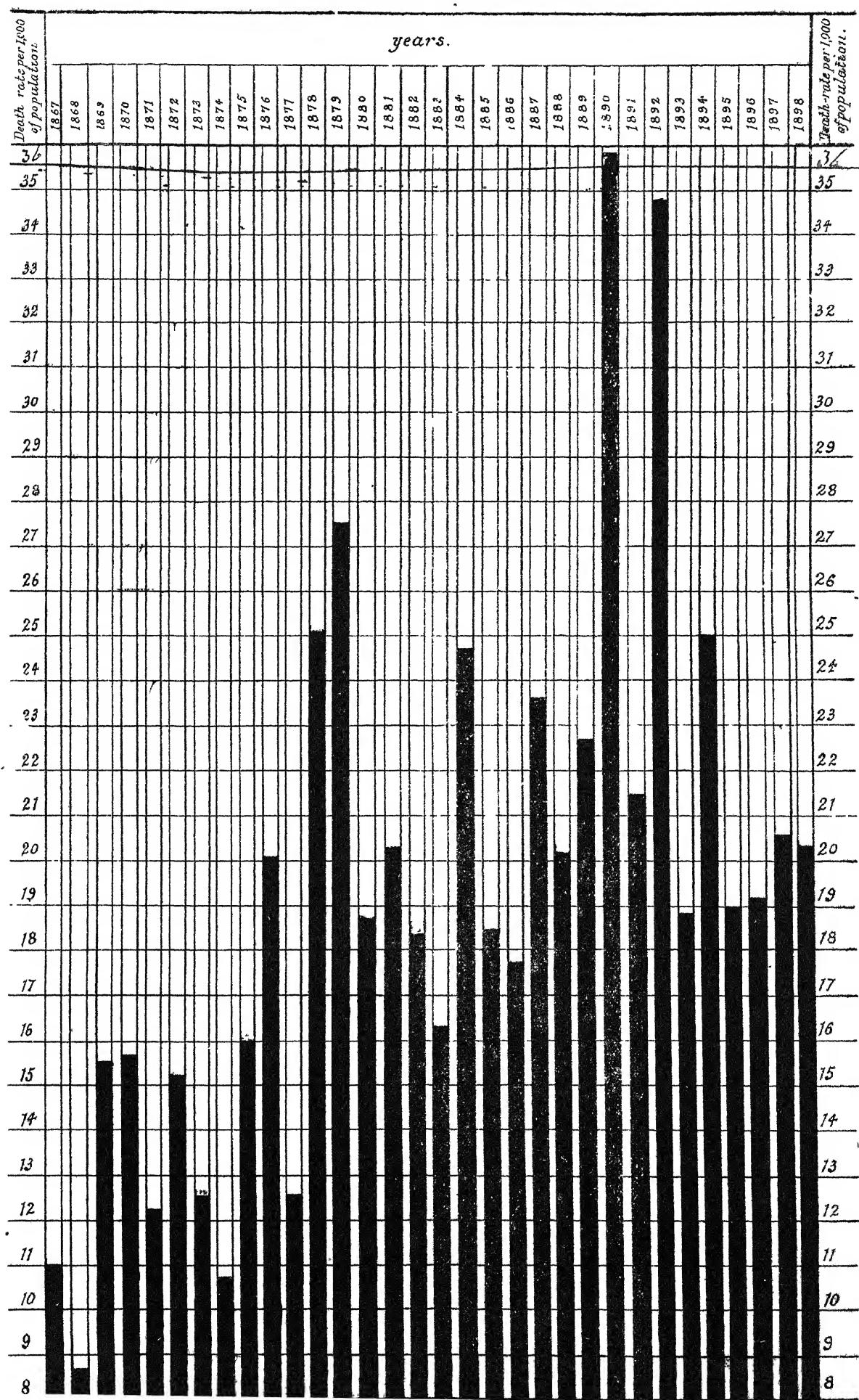
In 1898 there was a total of 418,206 deaths registered from fevers against 422,826 in 1897 and 393,535 in 1896.

Districts with high and low fever death-rates.

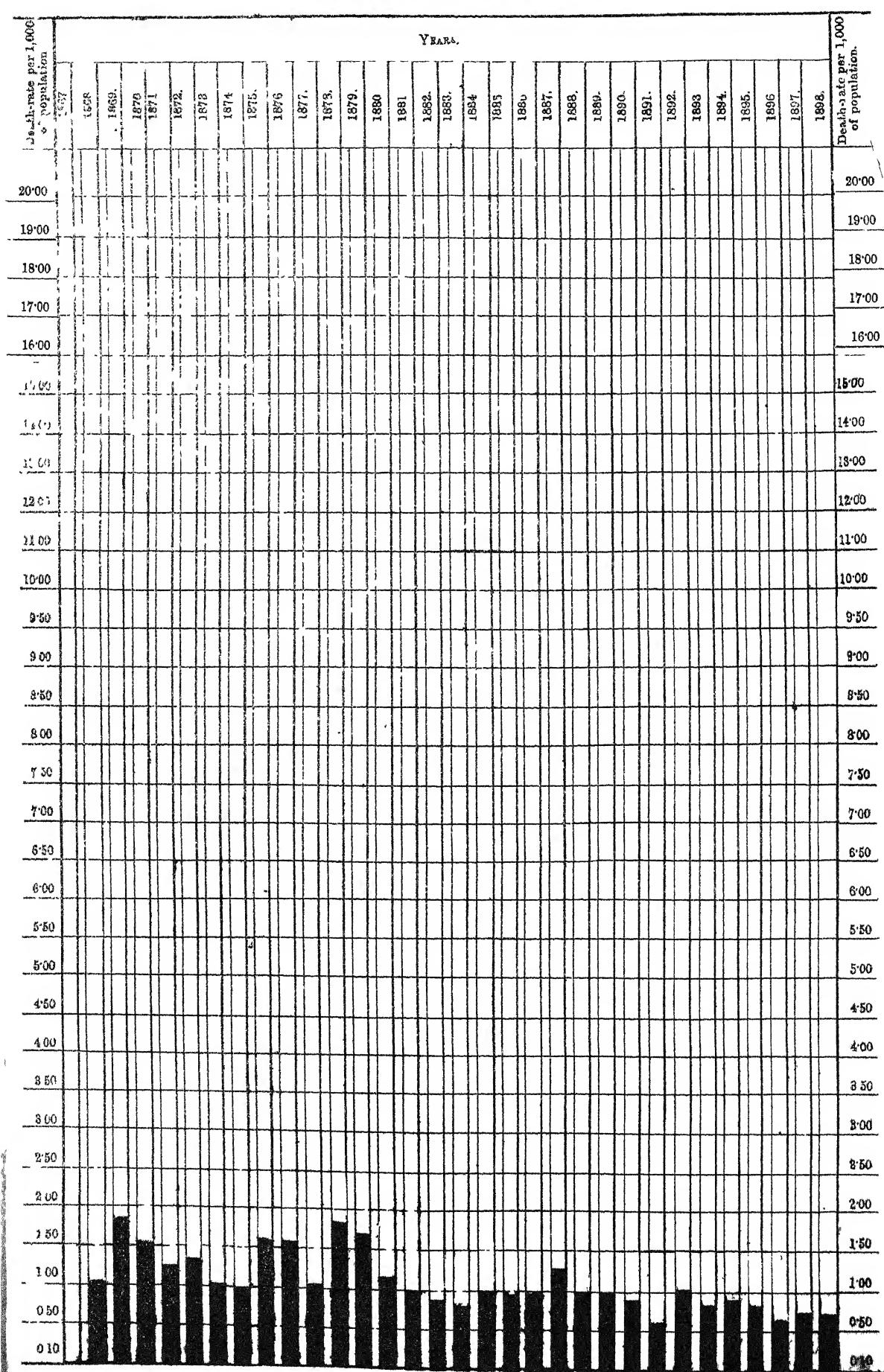
were—

	<i>Death-rates.</i>
Dera Ismail Khan ...	... 32·26
Bannu ...	... 27·99
Gujránwála ...	... 26·97
Muzaffargarh ...	... 26·29
Gurgáo ...	... 26·03
Karnál ...	... 25·06
Kohát ...	... 24·86
Dera Gházi Khan ...	... 24·26

commencement of registration to 1898.



Showing the rise and fall of Dysentery and Diarrhœa Mortality in the Punjab Province from 1867 i.e. commencement of registration to 1898.



The districts which recorded the lowest rates were—

									<i>Death-rates.</i>
Simla	...	...	...	...	...	...	...	...	9·76
Montgomery	...	...	...	...	...	...	...	...	10·51
Jullundur	...	...	...	...	...	...	...	...	13·88
Hazára	...	...	...	...	...	...	...	...	14·88
Hoshiárpur	...	...	...	...	...	...	...	...	15·30

DYSENTERY AND DIARRHŒA.

Chart showing deaths from dysentery and diarrhoea.

28. The rise and fall of the mortality from these diseases year by year since 1867 will be seen at a glance from the annexed chart.

Looking at this chart one cannot help noticing that in the period prior to 1880 there were many more bad years than there were afterwards, and that since the year 1887 in no year has the mortality exceeded 14 per *mille*.

29. The deaths registered from dysentery and diarrhoea are given in Districts with high annual Form No. X appended to this report. There is nothing in the statement that deserves any particular notice except that in Gurgácn, Delhi, Simla, Hoshiárpur, Gurdáspur, Siálkot and Dera Ismail Khan the death-rate was higher than in the other districts of the Province, and that these districts generally have also registered a higher death-rate in previous years. There is no apparent reason for this.

INJURIES.

Deaths from injuries

30. Under the head of Injuries 7,323 deaths were registered in the Province against 7,265 in the previous year.

Deaths from suicide.

31. From suicide 351 deaths were registered, 148 were males and 203 females, and the district in which the largest number of deaths from this cause occurred (13 males and 49 females) was Gurgáon as usual.

From wounding, &c.

32. Under the head of wounding 715 deaths were recorded, and the districts which registered the largest number were Pesháwar (95), Ráwalpindi (64), Bannu (60) and Kohát (52).

Deaths from accidents

33. The number of deaths due to accidents was 4,913; of these no less than 2,330 were caused by drowning.

Deaths from snake-bite.

34. The number of deaths caused by snake-bite amounted to 1,160 against 1,008 in the previous year. The districts in which the largest number of deaths occur are given below, with the mortality registered in them since 1891 to 1898—

Districts	1891	1892.	1893.	1894.	1895.	1896.	1897.	1898.
Mooltan ...	69	59	50	83	93	77	68	82
Jhang	60	46	59	75	70	70	65	87
Montgomery	69	70	79	66	73	49	60	70
Lahore .	40	50	83	86	99	73	82	93
Gujránwála	69	91	84	120	117	145	155	146
Shahpur	36	43	49	55	70	36	57	67
Ráwalpindi	43	35	48	58	68	50	49	63
Muzaffargach	40	55	47	65	73	53	49	57

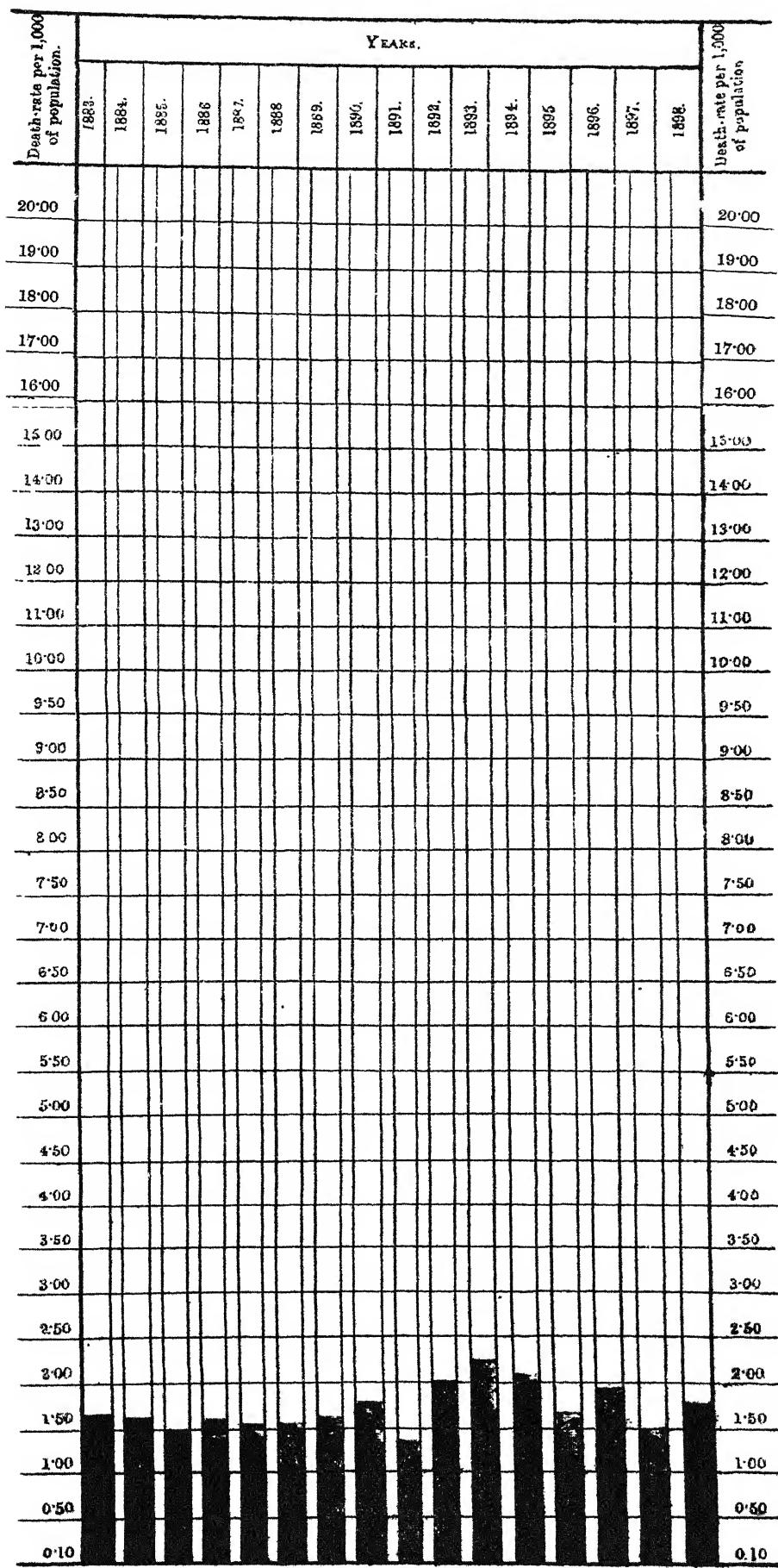
It will be seen from the above table that of late years the mortality from snake-bite has risen considerably. There seems no reason for this.

35. Under the head of hydrophobia 147 deaths were registered against Deaths from hydrophobia 129 last year. This increase shows how important it is bia. that means should be provided for the cure of the sufferers from this fatal disease. The only treatment at present known to be of any use is that introduced by Monseur Pasteur. It is most unfortunate that the poorer natives of India are unable to avail themselves of this treatment. It is hoped that the time is not far distant when a Pasteur Institute will be established in the Punjab and the people of India will no longer suffer without the possibility of any relief.

36. From all other causes 191,847 deaths were registered, including 37,299 deaths from cough and chest Deaths from "all other causes." diseases.

The rise and fall of mortality from chest diseases may be seen in the accompanying chart. One cannot help noticing that the mortality from these diseases since 1890 has been higher than it was before that year. This is no doubt due to greater care both in registration and diagnosis of the disease, the deaths formerly being entered under the head of Fevers.

Chart showing the rise and fall of mortality from chest diseases in the Panjab Province from 1883 to 1898.



Section IX.—Sanitary Works.

37. The following statement shows the important water-supply and Water-supply and drainage schemes, &c., which were either completed, in age schemes. progress or under consideration during the year in different parts of the Province :—

Name of District.	Locality.	Name of work.	Amount of estimated moneys.	Outlay to date.	REMARKS.
			Rs.	Rs.	
Hissár ...	Bhiwáni ...	Bhiwáni Water-works .	2,20,675	307	Estimate prepared and submitted for sanction.
Delhi ...	Delhi	Extension of Delhi water-works.	1,82,722	...	Estimate sanctioned but funds not yet granted.
Do. ...	Do. ...	Delhi Drainage Works...	6,09,042	47,553	Length of surface drains constructed during the half year, 10,676 cubic feet. Total length of drains constructed to end of December 1898, 57,676 cubic feet. The work is in progress.
Umballa ...	Umballa City	Drainage Scheme ..	...	...	Rough project called for by Commissioner and Superintendent, Delhi Division, is under preparation by Executive Engineer.
Simla ...	Simla ...	(1) Seog Reservoir ...	2,02,347	67,562	From 1st July to 31st December 1898 the progress was made as follows:— Excavation, C. feet. 103,228 Concrete " 39,200 C. R. Masonry " 5,050 If the work had not been stopped by Government from 23rd July to 1st November 1898 it would have been practically completed by 31st December 1898.
Do. ...	Do. ...	(2) Additional Feed Reservoir, Cherát-Nalta.	10,484	9,416	Completely finished.
Do. ...	Do. ...	(3) Gravitation Pipe supply to Cherát-Nalta Pumping Station.	2,40,292	7,300	Project submitted to the Secretary to Government, Punjab, Public Works Department, for approval.
Do. ...	Do. ...	(4) Additions and alterations to filter beds Nos. 1, 2 and 3.	18,594	7,141	Filter beds Nos. 2 and 3 nearly finished and work on filter bed No. 1 postponed until funds are provided by Simla Municipality.
Do. ...	Do. ...	(5) Separation of the drinking and sewer flushing water supplies and improvements to sanitary arrangements in Simla.	8,096	54	Estimate submitted for sanction.

Name of District	Locality.	Name of work.	Amount of estimate	Outlay to date.	REMARKS.
			Rs.	Rs.	
Simla	Simla	(6) Jack High Level Pipe line.	Rough estimate 27,000	82	Fair estimate under preparation.
Do	Do	(7) Tunnelling at No. 3 Spring	2,996	1,220	Completed
Do	Do	(8) Mahassu Reservoir Project	32,798	1,833	Estimate for Rs 32,798 submitted for sanction
Ludhiana	Ludhiana	Boring on the site of proposed wells for water supply, Ludhiana	414	408	Boring taken and the water has been approved by the Chemical Examiner Estimate for constructing experimental well has been sent to Commissioner for sanction by Municipal Committee but not yet received back
Do.	Jagraon	Intra-mural Drainage Scheme	6,551	..	Estimate submitted to Chief Engineer, Punjab.
Do	Do	Extramural Drainage Scheme	8,496	..	Project submitted to Chief Engineer, Punjab.
Ferozepore	Ferozepore	Drainage Scheme, City	61,416	..	The case is under disposal with Commissioner.
Do.	Fazilka	Drainage Scheme, Fazilka	17,237	..	Estimate sanctioned.
Do	Muktsar	Drainage Scheme, Muktsar Sewage and Drainage Scheme	17,292	..	Estimate submitted to Superintending Engineer for sanction but since returned to Executive Engineer with further remarks.
Lahore	Lahore	(a) City Project	47,863	24,457	In progress
Do	Do	(b) Anarkali Project	25,675	18,421	Work deferred for want of funds.
Do	Do	(c) Anarkali and Mowang Outfall.	77,885	55,203	In progress
Amritsar	Amritsar	Preliminary operations for water-supply	1,155	1,164	Completed.
Do	Do	Survey operations in connection with Amritsar Water-works Scheme with head works at the Bari Doab Canal.	200	212	Completed

Name of District	Locality	Nature of work	Amount in Rs.	Outlay to date	Remarks	
					Rs.	Rs.
Mooltan	Mohren	Drainage at	1,381	1,381		Construction of drains is in hand. The expenditure shown against this has been incurred on the construction of drains and cess tanks.
Rawalpindi	Riwalpindi	Drainage Scheme, Riwalpindi	1,47,151	1,47,151		Application made to Commissioner and Superintendent, Rawalpindi Division for acquiring land under Act I of 1894 required for the purpose.
Hazara	Hanipur	Water supply at—	49,056	46,262		Work completed.
Do	Ablottabab	Diversion of Town Drainage at	3,972			Work in abeyance under orders of the Government, vide para 1 of letter No 251 dated 17th February 1898 from Junior Secretary to Government, Punjab, to the Secretary to the Government, Punjab, P.W.D.

38. The table showing the aggregate income and expenditure of all the municipal towns in the Province is given in Appendix B of this report. The income amounted to Rs. 45,40,697, and there was a balance in hand at the beginning of the year of Rs. 9,91,384: the expenditure during the year amounting to Rs. 43,11,451.

39. The subjoined statement shows the amount expended on sanitary works under the principal heads for the years 1896, 1897 and 1898:—

Head of expenditure	DURING THE YEAR.		
	1896	1897.	1898
	Rs.	Rs.	Rs.
Conservancy establishment	5,83,174	6,35,308	5,90,777
Paving of streets	71,970	33,121	43,314
Roads and bridges	2,69,874	1,62,705	1,99,285
Drainage and sewerage	1,26,608	1,02,847	96,888
Water-supply, including cleaning of tanks, &c.	1,06,744	2,17,183	1,65,799
Latrines	15,813	15,475	28,922
Widening of streets	2,507	1,252	115
Total	12,36,690	11,67,891	11,25,100

40. It will be seen from the above table that the expenditure on drainage and sewerage amounted to Rs. 96,888 and on water-supply, including cleaning of tanks, &c., amounted to Rs. 1,65,799 as compared with Rs. 1,02,847 and Rs. 2,17,183, the figures respectively for the previous year.

41. The total income derived from the sale of manure in all the municipal towns of the Province amounted during the year to Rs. 1,43,501, as compared with Rs. 1,49,120 in 1897 and Rs. 1,36,076 in 1896.

42. The following statement shows the works of public utility constructed by private individuals at their own expense to serve sanitary purposes during 1897-98:—

Statement showing works of public utility constructed by private individuals during 1897-98.

No.	Names of district.	Names of contributors.	Description of works and localities.	Amount expended. Rs.
DELHI DIVISION.				
1	Hissár	Chúni Lál, son of Mata Mal, of Bhattu Kalán.	A paccá well at Bhattu Kalán ..	4,000
2	Do.	Sheo Rám, son of Dhanni, and Masánia, son of Kirpa Rám, of Buliáli.	A paccá well at Buliáli	2,000
3	Do.	(1) Rám Gopál, (2) Nathu Mal, and (3) Pars Rám, son of Gaunga Rám, of Bhattu.	A paccá well at Bhattu	1,100
4	Rohtak	Kirori Mal, son of Tulsi Rám, Mahájan, of Básli.	A paccá well and a dharm sála in the village of Básli.	2,000
5	Do.	Kirori Mal, son of Baldeo Sahái, and Hazári Lál, son of Kishen Sahai, Mahájans, of Básli.	A paccá well near the boundary of Básli.	1,776
6	Do.	Pír Chait Náth, Mahant of Bohar.	A tank with ghát near the boundary of Bohar.	1,500
7	Do.	Sheo Chand, Lambardár, of Bohar	A tank with gháts on the Rohtak and Kharkhauda Road.	1,200
8	Delhi	Kallan, Bania, of Nangla Gujrán.	A tank on the Bibbalgarhi-Pali Road near Nangla, with paccá ghát on two sides and a kacha ghát for cattle on one side.	5,000
9	Do.	Hira Lál, son of Jai Rám, of Narela	Temple, dharmála and paccá well on the Narela-Bághpáti Road.	2,000
10	Karnál	Lál Síhu Mal, Mahájan, of Koer, Tahsíl Karnál.	Paccá bathing gháts for men and women at Koer village.	5,000
11	Do.	Ruldu Mal, son of Hardwári Mal, Mahájan, of village Atewa, Tahsíl Kaithal.	Paccá bathing gháts for men and women and a dharm sála at Mauza Atewa, Tahsíl Kaithal.	2,500
JULLUNDUR DIVISION.				
1	Kángra	Brother Rupa and Bhikha, Súds, of Garli, Tahsíl Dera.	Paccá masonry tank constructed in Mauza Garli, Tahsíl Dera, on Garli Road.	5,649
2	Do.	Ránjhó, Súd, of Bahán, Tahsíl Dera	Paccá masonry tank in Mauza Bohán on road from Dera to Jawálamukhi.	2,237
3	Ferozepore	Rám Chand, son of Basti Rám, Bania, resident of village Kalyán Sukka, Tháuna Moga.	Paccá well on road from Bhágapurána to Nathána near villages Kalyán and Nathána.	2,000
LAHORE DIVISION.				
1	Lahore	Háji Nár Muhammad and Mián Mír Burhán of Gunja Kalán, Tahsíl Chúnián.	A rest-house with a very large compound and out-houses on the Kasúr and Fázilka Road outside the village Gunja Kalán, Tahsíl Chúnián.	8,500
2	Do.	Mirza Mobárák Beg, of Patti, Tahsíl Kasúr.	A rest-house with a large compound, out-houses and walls attached thereto, in Mauza Patti, Tahsíl Kasúr.	8,000
3	Amritsar	Har Karan Sahái	A paccá well with a dwelling-house at village Músá for the convenience of travellers	1,200
4	Gurdáspur	Rám Saran Dás, son of Nand Lál, Khatri, of Batálá.	A paccá sarai near the railway station at Batálá purely for public convenience and comfort.	3,000
5	Do.	Bishamber Dás, Hakím, son of Mulkh Ráj, Arora, of Batálá.	Ditto ditto ditto ditto	7,000
DERAJAT DIVISION.				
1	Muzaffargarh	Báwa Dhián Dás, Udási Fakír ..	Paccá well roofed, in the town of Muzaffargarh.	2,150

43. In the subjoined table the death-rates from cholera, small-pox, fevers and dysentery and diarrhoea are given for the five years preceding and for the period since the introduction of drainage or water-supply, or both, in the undermentioned towns and rural circles—

Statement showing statistics of mortality in localities where water-works, drainage, or both have been carried out.

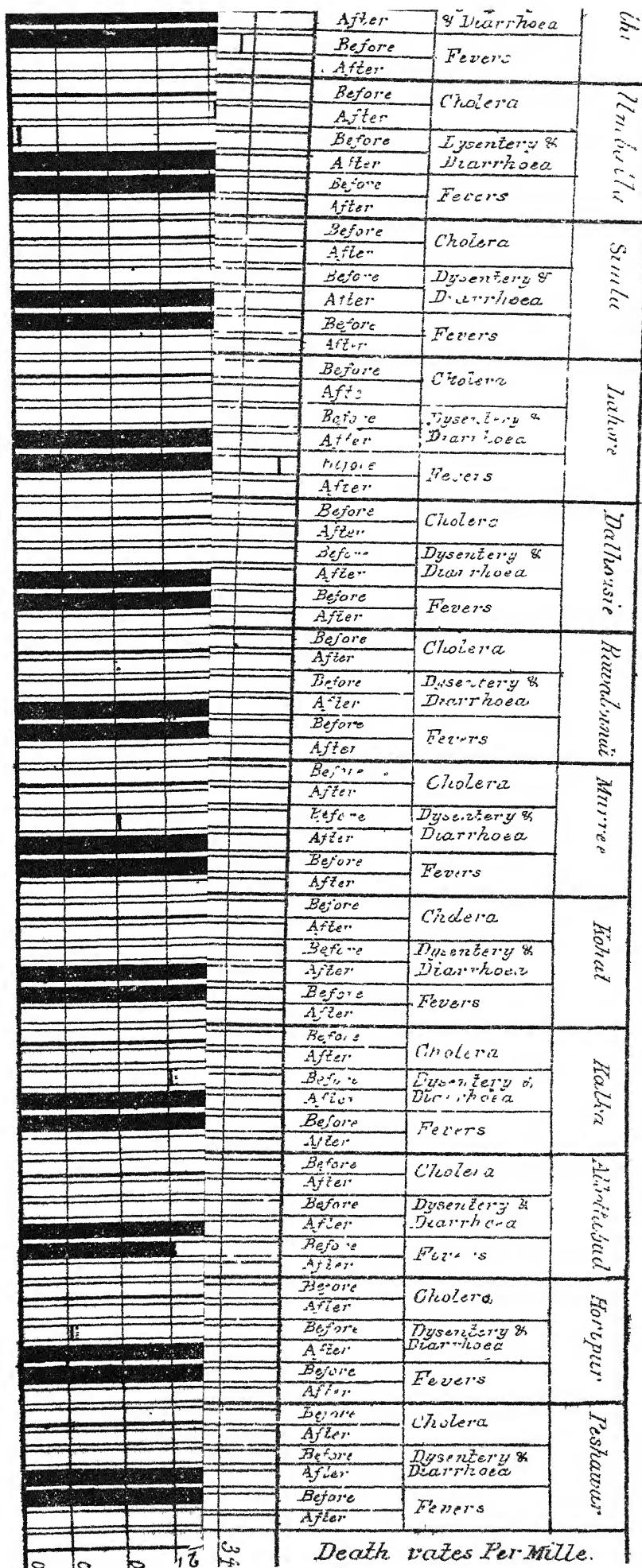
	Date of completion of works of	Average annual death-rate since the introduction of drainage or water supply, or both.					Average annual death-rate for the five years preceding the introduction of drainage or water-supply, or both.					REMARKS.	
		Drainage.	Water-supply.	Cholera.	Small-pox.	Fever.	Dysentery and diarrhoea.	Cholera.	Small-pox.	Fever.	Dysentery and diarrhoea.		
TOWNS.													
Delhi	1893	...	1·0	20·8	1·6	0·4	0·1	20·7	1·9			
Umballa	1895	0·1	0·9	11·2	4·4	0·5	0·4	19·3	6·4			
Simla	1893	1893*	...	0·3	14·9	0·6	...	1·1	17·1	1·4	* The works were begun in 1876 and completed in 1893.	
Ludhiána	1893	...	...	0·1	14·4	3·3	0·9	1·4	25·6	2·5		
Lahore	1881	0·9	0·8	19·9	1·6	1·9	1·6	27·8	2·3			
Amritsar	1885	...	0·3	0·2	26·7	1·9	0·9	1·3	32·8	3·2		
Dalhousie	1891	...	0·2	12·4	2·5	...	...	9·6	2·4			
Gujránwála	1892	...	0·2	0·4	14·5	1·2	0·5	0·6	19·7	1·7		
Siálkot	1898	...	0·1	1·1	16·9	2·8	...	0·9	9·3	3·5		
Ráwalpindi	1887	0·9	0·4	22·5	2·4	0·3	0·1	16·4	3·4			
Murree	1894	0·3	...	18·1	1·7	0·7	0·4	14·8	0·9			
Kohát	1892	1893	...	1·0	17·4	1·4	6·5	1·9	20·9	2·2		
Kálka	1890	0·4	0·1	16·8	2·6	1·7	0·2	15·2	3·9			
Jullundur	1891	0·4	0·3	18·0	2·3	0·5	0·1	15·9	2·9			
Bunga	1890	0·5	0·5	13·6	3·8	0·2	1·3	13·3	2·7			
Abbottabad	1892	0·6	0·1	9·7	0·4	0·6	...	8·9	0·7			
Harípur	1896	0·2	2·2	13·3	1·0	4·0	0·2	17·3	2·3			
Pesháwar	1888	1892	0·6	1·6	22·1	1·3	1·4	4·2	19·3	1·9		
RURAL CIRCLES.													
Gurdáspur	1894	...	0·3	22·8	1·0	0·2	0·1	38·7	2·1			
Kalánaur	1894	...	0·2	21·1	1·1	...	0·8	32·9	2·6			
Dunera	1894	...	0·2	20·9	0·3	0·2	...	21·5	0·9			
Shahgaríb	1894	...	0·3	24·9	1·2	0·1	0·3	42·4	1·3			
Fatehgarh	1894	...	0·1	21·7	0·9	0·1	0·2	31·2	2·2			
Kahnúwán	1894	...	0·3	19·8	1·4	...	0·1	41·8	1·2			
Dera Nának...	1894	...	0·1	21·2	0·8	...	0·1	37·3	0·8			

In paragraph 13 of the Review of the Sanitary Report for 1897 a statement was given showing the death-rates from cholera, small-pox, fevers and bowel-complaints before and after the introduction of water-supply in certain towns of the Punjab. I have given the statistics this year in the form of a chart, as it shows the results at a glance.

With very few exceptions, the statistics show a marked improvement in the health of towns in which the water-supply was introduced.

It is only after some years that the people take to using pipe water ; one great objection they have to pipe water is that it is so much warmer than well water. The only way to stop this is to have the reservoirs well covered and the pipes laid much deeper.

Chart showing the death-rates from cholera, dysentery and diarrhoea and fevers before and after the introduction of water-supply in the under-mentioned towns.



Section X.—General Remarks and Personal Proceedings.

44. Lieutenant-Colonel W. A. Crawford Roe, I.M.S., Sanitary Commissioner, Punjab, was in charge of the Department up to the Administration 22nd of August 1898 when he proceeded on one year's furlough. I took over charge from him on that date and remained in charge to the end of the year.

The office of the Deputy Sanitary Commissioner, Punjab, was held by Captain C. H. James, I.M.S., from the 1st January to 13th November 1898, but he was engaged all that time on plague duty in the Jullundur district. On his being appointed Civil Surgeon of Dharmasala he was succeeded by Captain E. Wilkinson, I.M.S., who was in charge of the office up to the end of the year. Captain Wilkinson also worked as Plague Medical Officer, Banga, in addition to his duties as Deputy Sanitary Commissioner, Punjab, from the 14th November to the end of the year.

45. As Professor of Hygiene I delivered the usual number of lectures to the students of the Medical College in the months of Lectures on Hygiene November, December 1898 and January 1899.

46. Lieutenant-Colonel W. A. Crawford Roe, I.M.S., made sanitary inspections of the following towns:—In January the towns of Umballa, Lahore, Thinesar, Shahabad, Karnál and 6 villages; in February the towns of Amritsar, Jandiála, Kartápur, Phillour, Ludhiána, Khanna and 7 villages; in March and April the towns of Lahore, Delhi and one village; in April and May the towns of Delhi, Pesháwar, Ráwalpindi, Murree, Kílka, Simla and one village.

I visited and inspected the following places:—In September the towns of Simla and Sániwar and the States of Theog and Kunersain and 5 villages; in October the towns of Dharmasala, Pathánkot, Mandi State and 16 villages; in November the towns of Ráwalpindi, Hassan Abdál, Abbottabad and Amritsar and 5 villages; in December the towns of Tarn Táran, Majitha and 4 villages.

Inspection work of Civil Surgeons and Assistant Surgeons.

17. The following table shows the number of municipal towns and smaller towns and villages inspected by the Civil Surgeons and Assistant Surgeons during the year:—

Statement 6. In the name of the number of small towns and villages inspected.

No.	District	NUMBER OF TOWNS & CITIES INSPECTED			Civil Surgeon	Number of days the Civil Surgeon spent on tour	Remarks by Civil Surgeon
		Cities	Towns	Villages and smaller towns			
1. Hissar		3	32		27		Reported sanitation, vaccination and birth statistics.
2. Rohtak		5	37		26		
3. Gurgaon		13	162		46		Sanitary inspection of towns and villages (wells, latrines and slaughter-houses), and other necessary recommendations in respect of factories.
4. Delhi		4	7		10		
5. Kurukshetra		1	21	6	142	5	Many of the villages and especially the municipal towns were visited more than twice, but their number is not given. The inspections of vaccination, sanitation and chowkidars' memo books of births and deaths were done.
6. Ummatpur		1	*		20		Many smaller towns and villages inspected.
7. Simla							
8. Kangra		6	46		137	1	40
9. Hisar		14	120		61		In every municipal town and village the civil persons were collected and along with them the water supply, drains and the mature godowns were inspected. The chief defects were pointed out to them and the disadvantages of the present state were described. It appears that the people are getting sensible, though very slowly.
10. Jullundur		6	90		40		
11. Ludhiana		5	25		6		
12. Ferozepur		8	48		19	15	Vaccination and sanitation inspection.
13. Moga		13	10		33		
14. Jhang		3	226		13		
15. Montgomery		..	*	3	72		The towns and villages were inspected when going to inspect the dispensaries and vaccination, but their number is not given. The Civil Surgeon could not inspect any outlying villages.
16. Lahore		6	..	1	...		
17. Amritsar		7	48		25	1	Inspected the towns in which dispensaries are situated. Pointed out defects to village officials and others resident therein, and how the defects can best be removed and how to prevent contamination of the air, soil and drinking water.
18. Gurdaspur		3	33	..	3		All these were inspected during the short tour of vaccination inspection not exceeding 24 hours or so. The registers of 21 villages were examined. The sanitation of 3 municipal towns and 33 villages was inspected during the year.
19. Sialkot		4	10		10		
20. Gujrat		3	220		78		Vaccination inspections were made. Birth and death registers were examined.
21. Gurdianwala		6	101		10		The water supplies were inspected and defects in the construction of the wells, etc., pointed out, also the drainage and general sanitary care of the surroundings of the towns and villages were seen to and their defects pointed out to the baches concerned brought to the notice of the Deputy Commissioner of the district.
22. Shahpur		10	16		48		Inspected several and tested the accuracy of chowkidars' register of births and deaths.
23. Jhelum		3	55		50		usual inspections of towns and village sites, wells, etc., were made.
24. Rawalpindi		3	15		16		Also inspected 124 vaccination operations and chowkidars' memo books of births and deaths at 10 villages, but no cassions were discovered.
25. Hazara		1	1		9		
26. Peshawar							
27. Kohat		1	6		6		
28. Bannu		3	...		...
29. Dera I. Khan		5	8		6		The Civil Surgeon could not be spared from his military duties.
30. Dera G. Khan		2	11		23	1	Vaccination inspected and sanitary state of villages seen. Their defects were pointed out to the inhabitants and the inhabitants of the villages.
31. Muzaffargarh		4	303		69		Inspecting vaccinations only in villages.
Total		150	1,662	11	371	753	91

Inspections made many times

This statement shows that in 1898 the Civil Surgeons inspected 150 towns and 1,662 villages compared with 134 towns and 2,108 villages in 1897. The Assistant Surgeons inspected 11 towns and 371 villages, compared with 14 towns and 159 villages.

48. From the Lawrence Military Asylum, Sániáwar, one death of a boy was reported during the year. The average strength of boys Military Asylum, Sániáwar was 273·42 and of girls 205·75. The average number daily sick amongst boys and girls, respectively, was 4·77 and 4·39 or 1·74 and 2·13 per cent of strength. The number of total admissions from different diseases was 144 amongst boys and 113 amongst girls, the largest number of admissions being from simple, continual and intermittent and remittent fevers.

I inspected this Asylum on the 15th of September 1893, and submitted my report.

49. In the Lawrence Memorial Asylum, Murree, there was no death registered. The average strength of the Asylum was 67·95 in the Lawrence Memorial Asylum, Murree for males and 64·87 for females. The average number daily sick was 0·50 and 0·50, respectively, showing a percentage of 0·68 for boys and 0·12 for girls. There were 47 admissions from different diseases during the year.

50. The following statement shows the birth and death-rates in the selected villages situated on the Western Jumna Canal, in the districts of Hissár, Rohtak, Delhi and Karnál since 1893, the year from which the tabulation of special statistics in those areas was instituted:—

Districts	BIRTH-RATE PER MIL						DEATH-RATE PER MIL								
	1893			1894			1895			1896			1897		
	1893	1894	1895	1893	1894	1895	1893	1894	1895	1893	1894	1895	1893	1894	1895
Hissár	34	42	10	39	55	3	23	25	27	23	42	28			
Rohtak	40	13	50	48	46	15	22	23	23	35	28	31			
Delhi	41	46	12	17	49	4	27	27	23	33	32	24			
Karnál	16	52	51	52	55	12	27	41	39	45	43	42			

51. From Appendix G. attached to this report it will be seen that Clearing and repairing 1,908 wells were cleaned and a number of platforms of wells repaired and constructed. The district in which most substantial progress was made in this direction was Gujránwála, in which the Deputy Commissioner says "that the Municipal Committee return 410 wells as cleaned out and 32 wells as repaired, and the District Board 46 and 4, respectively."

52. With regard to the gratuitous distribution of quinine Lieutenant Gratuitous distribution J. A. Dredge, I.M.S., the Civil Surgeon of Dera Ghází Khan, states that "a special sum of Rs. 60 per annum is sanctioned by the Deputy Commissioner of the district for purchase of medicines required by Vaccinators, and also a fairly large sum for the purchase of quinine for distribution to headmen of villages, Túmándárs and Tabáldárs, &c. Quinine was freely distributed in the district. Major Stephen Little, I.M.S., Civil Surgeon of Ráwálpindi, says that "quinine and sulphate of iron both to the value of Rs. 200 were purchased from the District Funds and powders and pills were made at the Civil Hospital, Ráwálpindi, and distributed through lambardárs in the villages for the use of fever and spleen cases as directed in Punjab Government letter No. 16, dated the 12th January 1894." Dr. Davis, Civil Surgeon, Gujránwála, says that "the Vaccination Staff were supplied with quinine for gratuitous distribution among fever-stricken people in the localities where the disease prevailed, and powders were also supplied to

the zaídárs and lambardárs of various villages through the police for distribution, which proved a great boon to the people, and was freely applied for."

53. Under the head of sewage farms there is little or nothing to be added to what was said in the report for the previous year.

Sewage farm The Secretary, Municipal Committee, Delhi, says: "That a filth-trenching farm was established in Mouza Khandrát Kalán, so as to do away with the evils resulting from pitting filth and then opening them for sale of manure. The area taken up is 254 *pācca bighás*: most of the land is *nazúl*, but some of it has been leased to private owners to get right of way for the canal and also to include it in a big fence. Most of the filth from the 11 wards within the city walls is now treated in Khandrát Kalán, and the fields so treated are let out at a better rent than before, (1) because of the trenching, (2) on account of the continual water brought to the land. This system not only improves the *nazúl* property, but does away with the necessity of 'pitting,' the filth, which is so very objectionable from a sanitary point of view. No filth is now buried in the old pits near the slaughter-house, and in consequence there is no direct sale of manure (or manion fields chiefly) in that locality. This new system of treating the filth as a course affected the income from 'sale of filth,' and the income itself is least will be lessened every year as the system is extended."

54. Mr. J. M. Douie, Deputy Commissioner of the Gurdaspur district, *Khasat town* states that "no rewards on this account were given during *village surveys* in 1898. At the District Board Meeting held on 7th February 1898, Rs. 100 were sanctioned for this purpose, but the reports received from Tahsídars show that no village is worthy of such rewards." The Delhi Division was excused from making the experiment in 1898 on the ground that some of the District Boards were bankrupt, and the funds of all have been abnormally reduced owing to famine expenditure in the past year, while Punjab Government letter No. 210, dated 11th February 1898, to the Commissioner and Superintendent of the Delhi Division. This matter has been dealt with separately and a separate report submitted in accordance with paragraph 16 of Punjab Government letter No. 12, dated 5th July 1898.

55. With regard to the "village sanitary note-books" very little has been *Village sanitary note-book* said by the District Officers. The Deputy Commissioner of Gurdaspur, Mr. Douie, says that "sanitary note-books have been kept in 12 villages in this district, but that there is nothing important to note at present in this connection. The only notes are those made when they were first started, and he doubts whether these books will ever be of much practical value."

Sanitary Board Proceedings.

56. There were no meetings held by the Sanitary Board during the year, but the following papers were submitted to the members for inspection :—

(1) Punjab Government Endorsement No. 1481, dated the 15th December 1897, regarding the proposed improvement of village sanitation by means of rewards.

Circulated, vide Nos. 266 to 270, dated 6th January 1898.

(2) Punjab Government No. 211, dated 9th February 1898, on the subject of exemption of the Delhi Division, from making the experiment during the current year of awarding villagers for improved sanitation of their villages.

Circulated, vide Nos. 45 to 52, dated 24th January 1898.

5; Minutes of the third meeting of the North-Western Provinces and Oudh. Sanitary Board, held at Lucknow, on the 21st December 1897.

Circulated, vide Nos. 60 to 64, dated 14th April 1898.

(4) Proceedings of the twenty-fifth meeting of the Sanitary Board, Bengal, held at Calcutta, on the 11th March 1898.

(5) Printed correspondence with a plan received, *vide* Chief Engineer, Public Works Department, Punjab, Endorsement No. 2358, dated 13th April 1898, on the subject of the drainage of the town of Ferozepore.

(6) Punjab Government Proceedings Nos. 5—15, for May 1898, on the subject of term of settlement of the Neli Circle of the Kharar Tahsil, in the Umballa District.

Circulated, vide Nos. 74 to 78, dated 28th June 1898.

(7) Correspondence (printed copy) received, *vide* Punjab Government Endorsement No. 373, dated 18th July 1898, on the subject of immediate repayment of the balance of loan for construction of water-works in the Kohát city.

Circulated, vide Nos. 98 to 97, dated 31st August 1898.

(8) Proceedings of the fourth meeting of the North-Western Provinces and Oudh, Sanitary Board, held at Naini Tál, on 23rd June 1898.

Circulated, vide Nos. 98 to 102, dated 22nd September 1898.

(9) Punjab Government Proceedings, Nos. 47 to 97, for July 1898, regarding Thánesar Solar Eclipse Fair of 1898.

Circulated, vide Nos. 182 to 186, dated 14th December 1898.

(10) Minutes of the fifth meeting of the North-Western Provinces and Oudh, Sanitary Board, held at Naini Tál, on the 23rd September 1898.

Circulated, vide Nos. 177 to 181, dated 14th December 1898.

(11) Minutes of the sixth meeting of the North-Western Provinces and Oudh, Sanitary Board, held at Naini Tál, on the 15th October 1898.

57. The reason no meetings have been held, appears to be that the general feeling among the members is that the Board having no executive power, meets uselessly. The matter of giving executive authority to the Board is now under consideration and will be laid before the Board at its next meeting at Simla.

58. I may say in conclusion that, judging from what I have seen in the chief towns of the Province and from reading the reports Conclusion. of my predecessors, there has been a good deal done to improve the sanitary state of many of these towns in the last few years.

C. J. BAMBER, LT.-COL., I.M.S.,

15th May 1899.

Offg. Sanitary Commissioner, Punjab.

ANNUAL FORM

STATEMENT OF BIRTHS AND DEATHS REGISTERED IN EACH DISTRICT OF THE PUNJAB AND THE

Serial No.	Districts	Area in square miles.	Average population per square mile.	Population on 1st Jan. 1901.			Births	
				Males	Females	Total		
1	2	3	4	5	6	7	8	9
Delhi Division.								
1	Muzaffarnagar	5,163	150	411,801	331,007	773,808	38,528	43·2
2	Rohilkund	1,797	328	310,426	277,020	590,116	27,036	45·8
3	Gurdaspur	...	337	330,191	218,669	548,830	35,470	53·0
4	Delhi	1,290	402	342,077	203,117	635,924	28,501	44·9
5	Karnal	2,116	250	467,665	303,429	861,094	36,816	42·8
6	Uttaribagh	2,751	337	435,718	366,136	804,849	29,543	36·7
7	Sirsa	102	316	22,163	18,081	35,246	768	21·6
Jullundur Division.								
8	Kangri	9,574	79	391,102	365,056	759,458	36,569	35·0
9	Hoshiarpur	2,211	151	510,038	471,606	1,011,644	39,522	39·1
10	Jullundur	1,473	622	481,630	409,717	891,347	37,561	42·1
11	Patiala	1,453	410	354,972	294,283	648,655	27,646	42·6
12	Ferozepore	1,302	200	409,316	392,153	801,469	39,413	45·7
Lahore Division.								
13	Mooltan	6,079	102	339,668	281,191	620,859	24,186	39·0
14	Jhang	5,871	74	233,579	203,242	436,821	23,338	53·4
15	Montgomery	5,754	87	269,569	229,880	500,449	18,867	37·8
16	Lahore	3,678	287	379,116	346,503	1,053,619	46,800	44·3
17	Amitsar	1,601	619	541,932	449,058	990,990	41,679	45·1
18	Gurdaspur	1,889	495	511,129	429,656	940,785	40,920	43·5
Rawalpindi Division.								
19	Sialkot	1,901	552	584,638	514,074	1,099,712	49,361	44·9
20	Gujrat	2,051	371	400,485	360,338	760,823	38,578	38·1
21	Gujranwala	3,017	229	378,972	311,089	690,061	37,104	53·8
22	Shahpur	4,840	102	258,118	235,417	493,535	19,252	39·0
23	Jhelum	3,995	152	315,011	290,763	605,774	20,358	33·6
24	Rawalpindi	4,814	175	447,519	397,710	845,259	28,861	34·1
Peshawar Division.								
25	Hazira	2,787	170	233,103	223,020	470,123	16,641	35·0
26	Peshawar	2,444	275	361,439	317,744	679,183	20,252	29·8
27	Kohat	2,771	69	96,577	85,910	182,487	6,363	34·9
Derajat Division.								
28	Bannu	3,847	96	195,514	174,458	360,972	13,119	35·5
29	Dera Ismail Khan	9,440	51	257,411	225,052	482,463	14,775	30·0
30	Dera Ghazi Khan	5,606	71	218,359	181,501	399,860	12,246	30·6
31	Muzaffargarh	3,422	111	206,908	174,164	381,072	13,377	35·1
Total for the Province				110,463	186	11,037,908	9,516,074	20,553,982
							841,869	41·0

Note—Those born dead are not to be included

No. II.

RECEIPTS AND EXPENDITURE IN EACH DISTRICT, FROM AND ON, CONSERVANCY, DURING THE YEAR 1893.

7			8	9												10	11	12	13		
NUMBER OF DEATHS REGISTERED.			Number of deaths of males to every 100 deaths of females,	DEATHS PER 1000 OF POPULATION FROM												MEAN RATIO OF DEATHS PER 1000 DURING PREVIOUS FIVE YEARS.			Net receipt of each district from conservancy.	Net expenditure in each district on conservancy.	Serial No.
Males.	Females.	Total.	13	14	Small-pox.	Fever.	Cholera.	Influenza.	Pneumonia and diarr. diseases.	All other causes.	All causes.	Males.	Females.	Total.	23	24	25	26	27	28	
10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	Rs.	Rs.	
11,242	10,259	21,501	109·6	..	0·1	20·0	0·7	0·2	6·7	27·1	28·1	27·7	31·1	31·8	31·1	2,199	17,816	1			
9,003	8,218	17,221	109·6	..	..	20·7	0·6	0·2	7·7	28·7	29·7	20·2	30·2	29·6	29·3	233	6,266	2		
12,867	11,560	24,433	111·2	..	0·3	26·0	1·4	0·1	8·1	36·7	36·3	36·5	32·5	31·8	32·2	532	8,957	3			
10,820	10,306	21,126	105·0	..	0·2	19·1	1·2	0·3	12·5	31·6	35·2	33·3	34·2	30·7	35·4	5,375	82,426	4			
16,925	15,728	32,653	107·6	..	0·4	25·1	0·7	0·4	11·4	36·2	40·0	37·0	37·0	40·3	38·8	282	12,550	5			
12,559	12,086	24,645	103·9	..	1·1	19·6	0·8	0·2	0·0	25·6	33·0	30·0	37·2	39·0	38·4	219	10,759	6			
448	312	760	143·6	..	..	9·8	1·0	0·4	9·5	20·2	23·9	21·6	23·7	28·1	25·4	401	31,754	7		
11,478	11,338	22,810	101·2	..	..	20·5	0·9	0·4	8·2	29·1	31·1	30·0	31·2	31·0	31·5	..	3,430	8		
14,413	13,961	28,874	103·2	..	0·8	15·3	1·1	0·3	11·1	26·7	29·0	28·1	32·2	34·4	33·2	1,285	10,093	9			
18,469	13,816	27,285	97·5	..	0·1	13·9	0·8	0·3	15·3	28·0	33·7	30·6	32·0	38·1	34·8	2,661	16,648	10			
10,359	10,597	20,956	97·8	..	0·2	19·2	0·6	0·3	11·9	29·2	36·0	32·3	31·4	38·1	34·4	6,010	13,400	11			
13,059	12,764	25,828	102·3	..	0·4	18·3	0·7	0·3	10·2	27·8	32·6	30·0	28·0	31·2	29·5	2,110	9,077	12			
9,122	8,810	17,732	113·4	..	0·1	19·8	0·7	0·5	7·8	27·7	29·6	28·6	28·8	30·9	29·7	6,660	23,715	13			
9,194	8,013	17,207	114·7	..	0·1	20·9	0·8	0·6	17·1	30·4	39·4	39·4	28·7	29·5	29·1	3,280	8,741	14			
5,571	5,053	10,624	110·3	..	0·6	10·5	0·4	0·4	9·1	20·7	22·0	21·3	24·8	25·4	25·1	166	3,082	15			
17,715	16,240	33,955	109·1	..	0·3	19·4	0·6	0·4	11·5	30·6	34·1	32·2	30·4	32·8	31·5	12,906	71,487	16			
16,850	16,753	33,603	100·6	..	0·3	19·2	1·0	0·3	13·1	31·1	37·3	33·9	34·1	39·0	36·8	45,288	72,532	17			
15,958	14,835	30,703	107·6	..	0·2	20·4	1·7	0·2	10·2	31·2	34·5	32·7	33·0	34·5	33·7	12,040	14,830	18			
18,641	17,806	36,447	101·7	..	0·6	20·9	1·1	0·3	10·3	31·9	31·6	33·2	30·7	30·7	30·7	19,110	17,880	19			
10,832	10,223	21,055	106·0	..	..	18·5	0·7	0·2	8·2	27·1	28·4	27·7	23·8	23·3	23·6	2,090	5,312	20		
13,235	12,191	25,426	108·6	..	..	27·0	0·3	0·6	9·0	34·9	39·2	36·9	29·6	31·8	30·6	10,509	16,728	21		
6,938	6,355	13,288	109·1	..	..	16·8	0·9	0·5	8·7	26·9	27·0	26·9	26·2	25·5	25·9	1,830	7,200	22		
9,291	8,840	18,131	105·1	..	0·1	20·5	0·7	0·4	8·3	29·5	30·1	29·9	28·0	28·2	28·1	213	7,020	23			
13,508	12,576	26,084	107·4	..	0·1	22·8	0·2	0·5	7·3	30·2	31·6	30·9	32·7	32·9	32·8	1,488	44,122	24			
5,200	5,003	10,203	103·9	..	0·3	14·9	0·1	0·3	5·9	20·5	22·4	21·4	23·6	25·6	24·6	411	5,369	25			
8,935	6,989	15,874	128·8	..	0·2	19·7	0·2	0·4	2·9	24·7	21·8	23·4	24·1	22·6	23·4	3,240	21,211	26			
2,988	2,708	5,696	110·3	..	0·3	24·9	0·2	0·5	5·2	30·9	31·5	31·2	32·0	31·5	31·7	322	5,056	27			
6,531	5,661	12,192	115·4	..	..	28·0	0·5	0·4	4·1	33·4	32·5	33·0	29·4	28·8	29·1	2,843	9,580	28		
10,176	9,175	19,351	110·9	..	0·2	32·3	1·1	0·4	6·2	39·5	40·8	40·1	31·3	32·3	31·7	1,056	18,856	29			
6,189	4,973	11,162	124·5	..	0·3	24·3	0·4	0·4	2·6	28·3	27·4	27·0	25·7	25·7	25·7	1,709	10,112	30			
6,207	5,501	11,708	112·8	..	0·1	26·3	0·5	0·5	3·3	30·0	31·6	30·7	28·9	30·4	29·6	1,070	3,722	31			
330,018	308,106	638,124	107·1	..	0·2	20·4	0·8	0·4	9·3	29·9	32·4	31·1	30·6	32·2	31·3	1,48,501	5,90,777				

in this or any of the other Statements.

ANNUAL FORM No. III.

DEATHS REGISTERED IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1898

No. 1	Districts 2	3												Total deaths registered during the year. No. 15	4	5
		January 4	February 5	March 6	April 7	May 8	June 9	July 10	August 11	September 12	October 13	November 14	December 16			
Delhi Division.																
1	Hissar	1,804	1,957	1,413	1,156	1,110	2,067	1,792	1,852	1,853	2,102	2,126	1,875	21,501	1	
2	Ranikot	1,420	907	1,285	1,116	1,321	1,779	1,179	1,498	1,557	1,841	2,113	1,172	17,221	2	
3	Gazipur	1,770	1,246	1,827	1,097	2,216	2,506	2,656	1,957	2,258	2,051	2,195	2,147	24,433	3	
4	Deli	1,653	1,182	27	1,047	1,594	2,222	1,506	1,709	1,696	1,958	2,045	2,174	21,126	4	
5	Koti	2,705	1,777	1,825	2,07	3,88	2,51	5,065	2,606	2,1	3,211	2,959	2,95	32,655	5	
6	Umlaut	2,122	1,171	1,584	1,805	2,265	2,120	1,981	1,752	2,199	2,510	2,340	2,211	24,645	6	
7	Sialkot	48	46	6	12	78	85	67	82	69	51	69	59	760	7	
Jullundur Division.																
8	Kangra	1,761	1,165	1,177	2,150	1,961	2,212	1,171	2,018	2,382	1,999	1,758	2,150	22,516	8	
9	Hoshiarpur	2,047	1,713	1,568	2,160	2,227	2,292	1,859	2,217	3,206	3,465	2,724	2,569	25,371	9	
10	Jallandhar	1,807	1,619	2,361	1,907	2,312	2,610	2,148	2,076	2,430	2,600	2,550	2,516	27,285	10	
11	Ludhiana	1,765	1,319	1,400	1,06	1,905	1,842	1,42	1,752	1,930	2,110	2,021	1,811	20,956	11	
12	Ferozepore	2,509	1,816	1,765	1,888	2,430	2,176	1,813	1,977	1,925	2,537	2,390	2,152	25,823	12	
Lahore Division.																
13	Mooltan	2,439	1,492	1,313	1,137	1,515	1,309	1,048	996	1,070	1,585	1,988	1,860	17,732	13	
14	Jhang	1,954	1,322	1,211	980	1,244	1,473	1,163	1,208	1,134	1,452	2,001	2,065	17,207	14	
15	Montgomery	1,333	882	783	700	906	990	717	704	656	850	1,051	1,048	10,624	15	
16	Lahore	2,624	1,925	1,866	1,834	2,980	3,087	2,594	2,806	3,001	3,688	3,819	3,711	33,955	16	
17	Amritsar	2,352	1,811	1,931	2,086	2,880	3,157	2,627	2,052	3,223	3,771	3,600	3,201	33,603	17	
18	Gurdaspur	2,052	1,601	1,655	1,899	2,610	2,302	2,158	2,075	3,479	4,076	3,430	2,636	30,793	18	
Rawalpindi Division.																
19	Sialkot	2,334	1,968	1,922	2,087	3,179	2,896	2,191	3,130	4,260	4,754	4,032	3,380	36,447	19	
20	Gujrat	1,633	1,128	1,144	1,233	1,570	1,631	1,518	1,820	2,375	2,581	2,209	2,094	21,055	20	
21	Gujranwala	1,992	1,196	1,093	1,406	2,521	2,281	1,908	2,295	2,127	2,251	3,023	2,430	25,426	21	
22	Shahpur	1,582	1,097	929	899	1,051	1,107	1,003	996	870	1,121	1,244	1,387	13,286	22	
23	Jhelum	2,074	1,390	1,143	1,099	1,224	1,360	1,206	1,301	1,554	2,022	1,896	1,862	18,131	23	
24	Rawalpindi	3,071	1,930	1,769	1,619	1,804	1,723	1,658	1,783	2,037	2,903	2,969	2,818	26,081	24	
Peshawar Division.																
25	Hazara	1,112	867	877	648	714	762	736	795	822	1,026	891	953	10,203	25	
26	Peshawar	1,561	1,465	1,240	1,171	1,414	1,370	1,251	1,274	1,091	1,153	1,288	1,561	15,874	26	
27	Kohat	899	654	441	368	309	287	327	339	330	526	531	685	5,696	27	
Derajat Division.																
28	Bannu	2,215	1,315	979	989	675	863	729	608	750	817	1,037	1,224	12,192	28	
29	Dera Ismail Khan	2,700	1,807	2,329	1,314	1,546	1,730	898	734	1,124	1,389	1,874	1,880	19,351	29	
30	Dera Ghazi Khan	1,513	910	808	1,855	799	682	558	850	628	893	850	807	11,162	30	
31	Muzaffargarh	1,565	1,037	1,162	1,138	867	638	600	649	637	958	1,295	1,127	11,708	31	
Total for the Province		58,358	41,973	43,639	44,578	53,537	55,409	45,334	49,861	55,083	64,467	64,618	61,307	688,124		
Ratio of deaths per 1,000 in each month.		2.84	2.04	2.12	2.17	2.60	2.70	2.21	2.43	2.68	3.14	3.14	2.98	31.05		

ANNUAL FORM No. IV.

DEATHS REGISTERED ACCORDING TO AGE IN THE DISTRICTS OF THE
PUNJAB DURING THE YEAR 1898.

ANNUAL FORM

DEATHS REGISTERED ACCORDING TO AGE IN THE

1	2	3	4	5	6	7	Under One Year.		One Year and Under 5 Years.		5 Years and Under 10 Years.		10 Years and Under 15 Years.		15 Years and Under 20 Years.		
							Districts.		Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
1	2	3	4	5	6	7											
Delhi Division.																	
1	Hissár	...	...	3,261	2,659	2,366	2,411	732	730	352	374	211	210			
2	Rohtak	...	...	3,004	2,600	1,606	1,657	544	480	258	262	228	218			
3	Gurgaon	...	...	3,508	2,974	3,074	2,857	816	778	365	313	294	288			
4	Delhi	...	...	3,272	2,994	2,162	2,110	503	477	315	319	273	273			
5	Karnál	...	...	4,714	4,409	4,102	3,849	878	842	463	391	384	300			
6	Umbálla	...	...	3,260	3,439	2,554	2,620	578	529	374	308	297	235			
7	Simla	...	...	117	71	31	29	9	9	9	7	11	15			
Jullundur Division.																	
8	Kángra	...	...	3,786	3,400	1,036	1,081	419	460	346	384	306	459			
9	Hoshiárpur	...	...	4,443	4,493	2,887	3,092	608	610	345	313	201	265			
10	Julluadur	...	...	4,379	5,057	2,972	2,980	545	533	279	295	307	387			
11	Ludhiana	...	...	3,378	3,864	2,602	2,615	461	432	210	202	168	176			
12	Ferozepore	...	...	4,255	4,408	3,874	3,860	568	522	336	332	256	279			
Lahore Division.																	
13	Móortán	...	...	3,183	2,860	1,219	1,227	682	672	58	45	113	100			
14	Jhang	...	...	2,834	2,748	1,796	1,632	504	431	279	280	138	108			
15	Montgomery	...	...	1,943	1,820	1,215	1,105	244	243	156	167	81	85			
16	Láhore	...	...	5,638	5,379	4,839	4,497	842	743	401	385	293	369			
17	Amritsar	...	...	5,379	6,056	4,472	4,435	707	673	338	327	233	333			
18	Gurdáspur	...	...	4,448	3,993	3,816	3,729	721	770	470	510	373	444			
Rawalpindi Division.																	
19	Siálkot	...	...	5,825	5,364	5,569	6,002	849	887	390	379	249	320			
20	Gujrát	...	...	2,906	2,887	3,209	3,156	514	520	241	232	151	161			
21	Gujranwála	...	...	4,120	4,150	3,881	3,620	732	626	318	299	182	199			
22	Sháhpur	...	...	2,192	1,960	1,446	1,471	372	347	153	147	98	108			
23	Jhelum	...	...	2,348	2,287	1,844	1,866	501	523	256	246	203	191			
24	Ráwalpindi	...	...	3,290	3,097	2,100	2,222	747	692	466	416	378	340			
Peshawar Division.																	
25	Hazára	...	...	1,615	1,274	689	752	262	293	163	154	161	162			
26	Peshawar	...	...	2,174	1,519	1,074	649	535	439	468	376	411	374			
27	Kohát	...	...	734	519	487	521	142	188	72	58	101	96			
Derejat Division.																	
28	Bannu	...	...	1,941	1,525	1,087	1,044	371	371	172	156	138	119			
29	Dera Ismáil Khan	...	...	2,478	2,187	2,309	2,263	551	499	222	159	329	274			
30	Dera Gházi Khan	...	...	1,905	1,410	1,031	895	396	312	168	138	128	103			
31	Muzaffargarh	...	...	1,741	1,629	902	846	257	256	161	141	123	102			
Total for the Province.				98,076	92,991	72,401	71,083	16,650	15,837	8,604	8,015	6,809	7,043				
Ratio per 1,000 living.				215·19	210·09	63·04	68·57	10·46	11·66	6·80	8·48	7·25	9·34				

No. IV.

DISTRICTS OF THE PUNJAB DURING THE YEAR 1898.

8		9		10		11		12		13		14
20 YEARS AND UNDER 30 YEARS.		30 YEARS AND UNDER 40 YEARS.		40 YEARS AND UNDER 50 YEARS.		50 YEARS AND UNDER 60 YEARS.		60 YEARS AND UPWARDS.		TOTAL.		No.
Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.	
13	14	15	16	17	18	19	20	21	22	23	24	25
623	673	571	592	644	584	684	506	1,738	1,570	11,242	10,250	1
450	493	461	445	491	441	561	496	1,310	1,117	9,003	8,218	2
828	679	750	751	912	832	845	745	1,475	1,349	12,867	11,566	3
742	767	782	781	759	664	737	648	1,325	1,303	10,820	10,306	4
1,073	1,012	1,097	1,125	1,180	955	1,098	916	1,927	1,929	16,925	15,723	5
856	874	937	879	903	720	898	713	1,902	1,789	12,559	12,086	6
50	47	52	38	53	21	39	23	77	52	448	312	7
817	1,346	842	900	961	789	866	619	2,000	1,851	11,478	11,388	8
743	884	840	831	890	677	902	658	2,554	2,195	14,413	13,961	9
618	597	575	638	680	571	782	595	2,332	2,213	13,460	13,513	10
381	402	403	409	403	419	597	475	1,611	1,543	10,859	10,597	11
447	512	476	471	506	478	658	464	1,688	1,438	13,059	12,764	12
529	527	647	617	674	511	708	452	1,600	1,300	9,422	8,310	13
352	374	462	434	556	371	523	430	1,750	1,255	9,194	8,013	14
194	224	225	240	241	216	304	236	963	717	8,571	5,053	15
794	889	817	738	871	607	846	588	2,374	2,045	17,715	16,240	16
741	885	767	688	787	583	826	580	2,600	2,213	16,850	16,753	17
872	1,024	924	936	1,074	796	1,131	754	2,120	1,879	15,958	14,835	18
672	725	746	698	806	626	880	612	2,655	2,213	18,641	17,806	19
484	417	531	473	540	428	561	451	1,695	1,498	10,832	10,223	20
475	465	513	466	572	433	579	447	1,863	1,481	13,235	12,191	21
256	270	380	328	358	279	418	381	1,315	1,064	6,038	6,355	22
501	508	649	592	631	523	645	554	1,713	1,550	9,291	8,840	23
968	998	1,254	1,209	1,129	923	966	758	2,210	1,921	18,508	12,576	24
325	449	465	551	440	443	320	314	700	611	5,200	5,003	25
462	406	484	458	598	551	894	725	1,835	1,442	8,935	6,939	26
212	235	343	289	263	263	243	207	301	332	2,988	2,708	27
357	343	479	482	534	465	573	384	884	772	6,531	5,661	28
733	746	886	839	795	632	956	833	917	793	10,176	9,175	29
354	410	445	376	428	331	434	276	900	722	6,180	4,973	30
408	457	554	494	521	351	496	384	1,044	841	6,207	5,501	31
317	18,668	19,257	18,817	20,299	16,418	20,965	16,254	49,640	42,980	330,018	308,106	
938	10,94	13,06	14,56	19,48	17,98	29,37	26,88	87,65	92,00	29,89	32,36	

ANNUAL FORM No. V.

DEATHS REGISTERED ACCORDING TO CLASSES IN THE DISTRICTS OF THE PUNJAB DURING THE YEAR 1898.

1 No.	2 Districts.	3 POPULATION ACCORDING TO CENSUS OF 1891.					4 NUMBER OF DEATHS REGISTERED.					5 RATIO OF DEATHS PER 1,000 OF POPULATION.					6 No.	
		Muslims	Hindus	Native Christians	Other classes	Total	Muslims	Hindus	Native Christians	Other classes	Total	Muslims	Hindus	Native Christians	Other classes	Total		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
Delhi Divn.																		
1	Hissár	199,010	576,737	43	18	775,808	5,184	16,317	—	—	21,501	26·05	28·29	—	—	27·71	1	
2	Rohtak	85,515	504,905	26	—	590,416	2,198	15,027	1	—	17,221	25·64	29·76	38·46	—	29·17	2	
3	Gurgaon	209,451	158,845	86	1	668,563	7,620	16,809	3	1	21,433	36·30	36·68	34·88	1,000·00	36·53	3	
4	Delhi	119,181	185,159	812	59	635,224	1,699	16,248	49	120	21,126	31·50	33·49	60·31	?	33·26	4	
5	Kiratpur	223,496	647,344	34	—	861,694	8,233	24,418	2	—	32,653	36·81	38·30	37·04	—	37·92	5	
6	Umballa	234,730	569,519	299	1	804,842	6,943	17,740	2	—	24,647	29·41	31·13	6·69	—	30·62	6	
7	Simla	—	5,527	29,661	50	5	35,246	169	586	5	—	760	30·38	19·75	100·00	—	21·56	7
Jullundur Divn.																		
8	Kangra	—	39,621	713,922	142	5,770	739,454	1,174	21,612	—	—	22,516	29·63	30·31	—	—	30·04	8
9	Hoshiarpur	—	928,668	682,870	106	—	1,611,644	8,912	19,190	—	—	28,371	27·21	28·15	18·87	—	28·03	9
10	Jullundur	—	405,527	482,770	20	—	891,347	12,808	14,477	—	—	27,287	31·35	29·20	—	—	30·61	10
11	Ludhiana	—	226,677	421,663	305	—	645,677	7,236	19,717	9	—	29,956	31·92	32·53	9·81	—	32·31	11
12	Ferozepur	—	336,193	194,098	12	5	561,499	12,459	19,361	—	—	25,823	31·12	28·71	—	—	29·97	12
Lahore Divn.																		
13	Mooltan	—	500,400	120,420	30	—	620,550	14,718	2,984	—	—	17,732	23·47	24·78	—	—	28·50	13
14	Jhang	—	344,438	92,371	17	—	436,821	13,158	4,045	3	1	17,207	38·20	43·79	176·47	?	39·39	14
15	Montgomery	—	361,923	137,513	13	—	490,449	7,966	2,658	—	—	10,624	22·01	19·33	—	—	21·27	15
16	Lahore	—	639,598	111,540	1,251	161	1,053,619	23,959	9,971	22	—	33,955	37·16	21·06	17·54	—	32·17	16
17	Amritsar	—	452,020	583,006	959	5	990,990	15,598	17,973	32	—	33,608	34·31	33·41	33·37	—	33·91	17
18	Gurdaspur	—	458,716	479,908	2,069	2	940,757	14,578	16,127	63	25	30,793	31·78	33·60	30·45	?	32·73	18
Rawalpindi Divn.																		
19	Sidhkot	—	681,153	408,075	9,482	—	1,098,712	21,297	11,877	152	121	36,447	35·67	29·10	16·03	?	33·17	19
20	Gujrát	—	669,317	91,412	64	—	760,820	18,872	2,679	2	2	21,055	27·45	29·31	31·25	?	27·67	20
21	Gujranwala	—	475,194	212,321	2,346	—	690,061	19,403	6,007	16	—	25,426	40·81	28·29	7·12	—	36·85	21
22	Shakhpur	—	417,661	75,842	27	5	493,535	11,207	2,021	—	—	13,288	26·98	26·65	—	—	26·92	22
23	Jhelum	—	541,192	61,302	68	12	605,774	16,113	2,017	1	—	18,131	29·77	31·27	14·71	—	29·93	23
24	Rawalpindi	—	751,060	91,137	41	9	815,230	23,307	2,608	109	—	26,084	30·99	28·62	—	?	30·86	24
Peshawar Divn.																		
25	Hazara	—	454,771	21,330	24	—	476,125	9,738	414	—	1	10,203	21·48	20·82	—	?	21·43	25
26	Peshawar	—	648,954	30,190	32	7	679,183	15,396	441	1	36	15,874	23·72	14·61	31·25	?	23·37	26
27	Kohat	—	174,251	8,204	2	—	182,187	5,599	97	—	—	5,696	32·13	11·82	—	—	31·21	27
Derajat Divn.																		
28	Bannu	—	336,186	33,778	8	—	369,972	11,011	1,181	—	—	12,192	32·75	34·96	—	—	32·95	28
29	D. I. Khan	—	418,504	63,814	48	7	482,463	17,169	2,182	—	—	19,351	41·02	34·19	—	—	40·11	29
30	D. G. Khan	—	347,020	52,211	29	—	399,860	9,471	1,633	—	56	11,162	27·23	31·32	—	?	27·91	30
31	Mazaffargarh	—	327,727	53,341	4	—	381,072	10,176	1,531	—	1	11,708	31·05	28·70	—	?	30·72	31
Total for the Province		11,511,578	9,017,902	18,375	6,067	20,553,982	359,026	278,236	359	483	638,124	31·19	30·86	19·54	*79·61	31·05		

* The high death-rate is due to erroneous classification of population.

ANNUAL FORM No. VI.

DEATHS REGISTERED FROM DIFFERENT CAUSES IN THE DISTRICTS (RURAL CIRCLES) AND TOWNS OF THE PUNJAB DURING THE YEAR 1898.

ANNUAL FORM

DEATHS REGISTERED FROM DIFFERENT CAUSES IN THE DISTRICTS

Number	Name	2	3	4	5	6	7	INJU			8
								Population according to census of 1891.	Cholera.	Small-pox.	Fever.
1		2	3	4	5	6	7	8	9	10	
A.—RURAL CIRCLES											
1	Hissár	... .. .. .. ..	689,212	...	68	14,190	358	3	4	131	
2	Rohtak	... .. .. .. ..	538,785	..	5	11,526	256	4	4	94	
3	Gurgáon	... .. .. .. ..	601,443	..	163	16,298	695	12	46	173	
4	Delhi	... .. .. .. ..	423,113	..	10	8,216	429	3	16	110	
5	Karnál	... .. .. .. ..	774,720	..	323	20,117	389	7	11	208	
6	Umballa	... .. .. .. ..	739,137	..	861	14,845	501	6	8	145	
7	Simla	... .. .. .. ..	24,026	..	..	148	64	..	2	7	
Jullundur Division.											
8	Kángra	... .. .. .. ..	746,775	..	..	15,365	616	8	10	214	
9	Hoshiárpur	... .. .. .. ..	940,561	..	187	14,365	847	9	17	241	
10	Jullundur	... .. .. .. ..	780,065	..	101	10,898	449	4	6	181	
11	Ludhiána	... .. .. .. ..	565,984	..	151	11,286	202	6	6	163	
12	Ferozepore	... .. .. .. ..	810,705	..	313	15,026	519	14	8	202	
Lahore Division											
13	Mooltan	... .. .. .. ..	536,268	..	31	11,101	202	1	2	188	
14	Jhang	... .. .. .. ..	401,023	..	25	8,708	270	1	1	150	
15	Montgomery	... .. .. .. ..	480,950	..	253	5,029	166	2	1	132	
16	Lahore	... .. .. .. ..	846,621	..	306	16,498	287	5	11	208	
17	Amritsar	... .. .. .. ..	837,882	..	312	15,750	722	10	12	196	
18	Gurdáspur	... .. .. .. ..	876,381	..	151	17,876	1,477	3	8	156	
Rawalpindi Division.											
19	Siálkot	... .. .. .. ..	1,029,484	..	558	21,779	1,027	11	3	258	
20	Gujrát	... .. .. .. ..	721,241	..	18	13,402	398	2	...	131	
21	Gujránwála	... .. .. .. ..	628,953	..	8	17,472	89	9	2	234	
22	Shahpur	... .. .. .. ..	443,632	..	7	7,603	295	3	...	163	
23	Jhelum	... .. .. .. ..	581,123	..	44	11,877	272	1	2	167	
24	Rawálpindi	... .. .. .. ..	785,870	..	86	17,991	75	2	2	298	
Peshawar Division.											
25	Hazára	... .. .. .. ..	457,170	..	121	6,747	15	..	1	134	
26	Pesháwar	... .. .. .. ..	616,119	..	122	12,065	78	..	..	250	
27	Kohát	... .. .. .. ..	168,145	..	90	4,311	10	..	..	77	
Derajat Division.											
28	Banu	... .. .. .. ..	345,124	..	4	9,714	62	..	2	81	
29	Dera Ismail Khan	... .. .. .. ..	436,063	..	96	14,407	331	1	1	108	
30	Dera Gházi Khan	... .. .. .. ..	356,398	..	94	8,794	71	..	4	99	
31	Muzaffargarh	... .. .. .. ..	369,556	..	49	9,737	175	1	2	107	
Total of the Rural Circles			18,551,934	..	4,566	333,141	11,347	128	192	5,001	

No. VI.

(RURAL CIRCLES) OF THE PUNJAB DURING THE YEAR 1898.

RIES. and wild beasts.	Total	9		10		11						12		
		All other causes,		Total deaths from all causes.		RATIO OF DEATHS PER 1,000 OF POPULATION.								
		11	12	13	14	Cholera.	Small-pox.	Fever.	Dysentery and diarrhoea.	Injuries.	All other causes.	For the year.	Mean ratio of previous five years.	Number.
31	169	3,907	18,692	...	0·10	20·39	0·52	0·25	5·67	27·12	30·43	1		
25	127	3,969	15,883	...	0·01	21·39	0·47	0·21	7·37	29·48	29·69	2		
20	251	4,952	22,358	...	0·27	27·10	1·16	0·42	8·23	27·17	32·02	3		
30	159	5,179	13,993	..	0·02	19·42	1·01	0·38	12·21	33·07	33	4		
46	287	8,483	29,564	...	0·42	25·97	0·50	0·34	10·02	28·16	29·76	5		
20	179	6,544	22,930	...	1·16	20·05	0·68	0·21	8·85	31·02	48·02	6		
1	10	184	406	...	...	6·16	2·66	0·42	7·66	16·90	21·72	7	
46	278	6,098	22,357	...	...	20·58	0·82	0·37	8·17	29·94	31·43	8	
41	308	10,889	26,096	...	0·20	15·27	0·90	0·33	11·05	27·75	32·96	9		
10	201	12,190	23,839	...	0·18	18·97	0·58	0·26	15·63	30·56	34·79	10		
8	183	6,457	18,279	...	0·27	19·94	0·36	0·32	11·41	32·30	34·20	11		
27	251	8,371	24,480	...	0·39	18·53	0·64	0·31	10·33	30·20	29·47	12		
84	275	3,647	15,256	...	0·06	20·70	0·38	0·51	6·80	28·45	20·19	13		
85	237	6,488	15,728	...	0·06	21·71	0·67	0·59	16·18	39·22	28·30	14		
72	207	4,481	10,141	..	0·54	10·47	0·35	0·43	9·33	21·11	21·01	15		
96	320	9,327	26,738	...	0·36	19·49	0·34	0·38	11·02	31·58	30·68	16		
41	259	10,528	27,571	...	0·37	18·80	0·86	0·31	12·57	32·91	34·84	17		
28	195	8,955	26,654	...	0·17	20·40	1·69	0·22	10·22	32·70	33·44	18		
51	323	10,255	33,942	...	0·54	21·16	1·00	0·31	9·96	32·97	30·44	19		
28	161	5,619	19,598	...	0·02	18·58	0·55	0·22	7·79	27·17	23·19	20		
154	399	5,347	23,315	...	0·01	27·78	0·14	0·63	8·50	37·07	30·71	21		
69	235	3,750	11,890	...	0·02	17·14	0·66	0·53	8·45	26·80	25·51	22		
49	219	4,877	17,289	...	0·08	20·44	0·47	0·38	8·39	29·75	27·86	23		
63	365	5,488	24,005	...	0·11	22·89	0·10	0·46	6·98	30·55	32·56	24		
7	142	2,655	9,680	...	0·26	14·76	0·03	0·31	5·81	21·17	24·14	25		
...	250	1,496	14,011	...	0·20	19·58	0·13	0·41	2·43	22·74	22·45	26		
6	83	791	5,285	...	0·54	25·64	0·06	0·49	4·70	31·48	31·75	27		
18	101	1,819	11,200	...	0·01	28·15	0·18	0·29	3·82	32·45	28·89	28		
32	142	2,512	17,488	...	0·22	33·04	0·76	0·33	5·76	40·10	31·20	29		
29	132	651	9,742	...	0·26	24·68	0·20	0·37	1·83	27·88	25·17	30		
60	170	1,144	11,275	...	0·13	26·35	0·47	0·46	3·10	30·51	29·09	31		
	1,277	6,598	166,033	571,685	...	0·25	20·65	0·61	0·36	8·95	30·82	30·85		

ANNUAL FORM

DEATHS REGISTERED FROM DIFFERENT CAUSES IN THE

1 No.	2 B.—TOWNS.	3 Population according to census of 1891.	4 Cholera.	5 Small-pox.	6 Fever.	7 Dysentery and diarrhoea.	8 INJURIES		
							Suicide.		10 Wounding and acci- dents.
							8 Males.	9 Females.	
1	2	3	4	5	6	7	8	9	10
Hissar District.									
1	Hissár	16,854	..	..	1	300	31	..	3
2	Hánsi	15,190	..	..	181	24	..	..	2
3	Bniádini	25,497	..	4	499	50	..	..	8
4	Sírsi	16,415	..	..	319	28	..	..	6
5	Fatchabád	2,548	..	..	10	2	..	..	1
Rohtak District.									
6	Rohták	16,191	..	..	180	31	..	..	..
7	Jktájpur	11,881	..	2	137	16	1	..	4
8	Beri	9,825	..	1	142	11	..	..	2
9	Gohána	7,690	..	..	128	8	..	..	..
10	Babádúrgarh	6,103	..	1	117	4	..	..	1
Gurgaon District.									
11	Rewári	27,934	2	..	247	83	..	..	6
12	Palíwal	11,227	..	7	345	24	..	1	4
13	Farukhnágár	5,881	..	..	109	39	..	..	1
14	Fírozpur	6,848	..	2	141	..	..	..	4
15	Schná	5,990	..	4	145	..	..	1	3
16	Hodal	9,601	..	11	127	31	..	..	1
Delhi District.									
17	Delhi	169,649	..	..	3,523	183	..	..	37
18	Sonepat	12,611	..	68	219	44	..	1	4
19	Balaúgarh	4,471	..	2	60	46	..	..	2
20	Farídábád	5,929	..	25	133	32	..	..	2
Karnál District.									
21	Karnál	21,530	..	..	431	79	..	..	5
22	Kaithál	15,768	..	9	287	43	..	..	12
23	Páupat	27,547	..	1	416	55	..	1	2
24	Ládwa	4,011	..	..	75	1	..	..	1
25	Shahabád	11,473	..	..	156	23	..	..	2
26	Thánesar	6,111	..	..	98	10	..	..	1
Umballa District.									
27	Umballa	26,856	1	..	294	57	..	..	4
28	Jagádhri	13,029	..	..	236	15	..	..	5
29	Burya	6,809	..	..	130	11	..	..	1
30	Sadabára	10,445	..	..	158	8	..	..	2
31	Rúpar	8,693	..	2	102	20	..	..	1
Simla District.									
32	Simla	13,279	..	..	196	4	..	..	3
Kangra District.									
33	Kángra	5,234	..	..	65	28	..	..	2
34	Dharmásála	2,778	..	..	38	14	..	..	3
35	Núrpur	4,837	..	3	128	12	..	..	3
Hoshiarpur District.									
36	Hoshiárpur	17,546	..	3	246	76	..	2	13
37	Khánpur	3,553	..	..	60	29	..	..	1
38	Hariána	7,066	..	6	74	34	..	..	2
39	Gárdhwála	4,045	..	12	55	15	..	..	1
40	Dasúh	7,047	..	..	125	12	..	..	3
41	Tánda and Urmára	11,632	..	49	224	36	..	..	2
42	Miáni	6,849	..	..	125	13	..	..	..
43	Mákerián	3,977	..	..	76	21	..	..	1
44	Una	4,483	..	1	52	16	..	..	2
45	Anandpur	5,100	..	..	79	9	..	1	..
Jullundur District.									
46	Jullundur	50,375	..	2	773	124	..	..	9
47	Alawalpur	4,380	..	..	56	1	..	..	1
48	Kartápur	10,441	..	..	161	37	..	1	3
49	Bungáh	5,010	..	1	29	15	..	..	2
50	Ráhon	10,667	..	1	111	35	..	..	4
51	Nawasháhr	5,601	..	..	28	24	..	..	8
52	Phíllour	6,697	..	1	109	10	..	..	..
53	Núrmaháil	8,520	..	4	103	13	..	..	2
54	Nakodar	9,740	..	4	104	12	..	..	4

No. VI.

TOWNS OF THE PUNJAB DURING THE YEAR 1898

No.	Name of town	District	Population	Ratio of deaths per 1,000 of population												For all causes	
				9			10			11			12				
				Snake bite and killed by wild beasts,	Total deaths	All other causes	Total deaths	Cholera	Small pox	Proven	Diseases and drap-	Influenza	All other causes	For the year	Mean of pre- vious five years		
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
1	Amritsar	Amritsar	276	620	0.06	18.33	1.81	0.18	16.28	16.79	40.21	1	30.41	27.91	31.56	2	
2	Amritsar	Amritsar	217	424	0.11	11.92	1.58	0.13	14.29	11.51	41.56	3	31.79	27.91	35.39	4	
3	Amritsar	Amritsar	537	1,128	0.46	14.06	2.25	0.23	15.12	13.40	34.97	5	37.99	31.79	37.99	6	
4	Amritsar	Amritsar	220	574	0.11	19.43	1.71	0.43	13.40	22.12	37.99	7	37.99	31.79	37.99	8	
5	Amritsar	Amritsar	20	68	—	11.04	0.70	0.35	7.02	—	—	9	—	—	—	10	
6	Bathinda	Bathinda	3	—	—	—	—	—	—	—	—	11	30.49	26.19	30.87	12	
7	Bathinda	Bathinda	6	210	424	0.17	11.12	1.91	0.19	12.97	25.42	32.59	13	25.42	27.83	32.93	14
8	Bathinda	Bathinda	141	302	—	0.10	11.53	1.35	0.51	11.87	25.10	31.98	15	27.83	25.10	31.98	16
9	Bathinda	Bathinda	2	209	—	—	14.15	1.12	0.20	11.50	—	—	17	—	—	—	18
10	Bathinda	Bathinda	1	59	193	—	16.88	1.04	—	7.67	24.55	31.98	19	25.10	24.55	31.98	20
11	Bathinda	Bathinda	27	150	—	0.16	19.17	0.66	0.16	4.42	—	—	21	—	—	—	22
12	Bathinda	Bathinda	7	281	620	0.07	8.81	2.97	0.25	10.06	22.20	31.80	23	20.78	17.49	31.49	24
13	Bathinda	Bathinda	5	122	503	0.62	30.78	2.14	0.45	10.87	44.80	33.46	25	44.80	36.05	33.46	26
14	Bathinda	Bathinda	1	63	212	—	19.53	6.63	0.17	10.71	24.02	36.77	27	36.05	24.02	36.77	28
15	Bathinda	Bathinda	3	52	233	0.29	20.59	4.82	0.73	7.59	39.06	35.29	29	35.29	21.73	35.29	30
16	Bathinda	Bathinda	4	65	228	0.67	24.21	1.67	0.77	10.53	29.06	21.73	31	29.06	20.06	21.73	32
17	Bathinda	Bathinda	1	106	279	1.15	13.23	3.54	0.10	11.74	—	—	33	—	—	—	34
18	Bathinda	Bathinda	8	46	2,563	0.36	18.60	0.96	0.24	13.51	33.65	38.36	35	37.79	29.42	37.79	36
19	Bathinda	Bathinda	7	99	371	0.16	17.37	3.49	0.36	7.85	32.41	34.60	36	34.60	32.41	34.60	37
20	Bathinda	Bathinda	2	37	145	—	18.41	10.28	0.45	8.27	35.02	32.05	38	32.05	35.02	32.05	39
21	Bathinda	Bathinda	2	32	229	—	4.22	5.10	0.34	5.40	—	—	40	—	—	—	41
22	Bathinda	Bathinda	5	393	911	—	20.02	3.67	0.27	18.25	42.81	41.02	41	40.81	39.21	41.02	42
23	Bathinda	Bathinda	6	296	641	0.57	18.20	2.73	0.38	18.77	40.65	39.21	43	39.21	36.96	39.21	44
24	Bathinda	Bathinda	14	532	1,018	0.04	15.10	2.00	0.51	19.31	29.92	46.02	45	46.02	29.92	46.02	46
25	Bathinda	Bathinda	2	42	120	—	18.70	0.25	0.50	10.47	29.57	29.11	47	29.11	22.57	32.86	48
26	Bathinda	Bathinda	1	79	259	—	18.70	2.00	0.09	6.89	22.57	23.46	49	23.46	22.57	32.86	50
27	Bathinda	Bathinda	2	30	140	—	16.04	1.61	0.33	4.91	22.91	22.91	51	22.91	22.91	22.91	52
28	Bathinda	Bathinda	4	373	729	0.04	—	2.12	0.15	13.59	27.14	35.78	52	35.78	28.40	35.78	53
29	Bathinda	Bathinda	5	114	370	—	18.11	1.15	0.38	8.75	28.40	43.14	54	43.14	32.66	43.14	55
30	Bathinda	Bathinda	1	40	182	—	19.09	1.62	0.15	5.57	26.73	32.66	56	32.66	26.73	32.66	57
31	Bathinda	Bathinda	2	82	250	—	15.13	0.77	0.19	7.85	23.93	23.46	58	23.46	23.93	23.46	59
32	Bathinda	Bathinda	1	59	184	0.28	11.73	2.30	0.12	6.79	21.17	30.67	60	30.67	21.17	30.67	61
33	Bathinda	Bathinda	3	151	354	—	11.76	0.30	0.23	11.37	26.66	25.03	62	25.03	26.66	25.03	63
34	Bathinda	Bathinda	1	74	169	—	12.42	5.85	0.38	14.14	32.20	36.53	64	36.53	37.51	36.53	65
35	Bathinda	Bathinda	4	47	103	—	13.68	5.04	1.41	16.92	37.09	36.81	66	36.81	38.66	36.81	67
36	Bathinda	Bathinda	3	41	187	0.02	26.46	2.18	0.62	8.48	—	—	68	—	—	—	69
37	Bathinda	Bathinda	15	269	600	0.17	14.02	4.33	0.85	15.33	31.71	40.39	70	40.39	40.25	40.39	71
38	Bathinda	Bathinda	1	53	143	—	16.89	8.16	0.28	14.92	37.79	45.08	72	45.08	40.91	45.08	73
39	Bathinda	Bathinda	3	59	176	—	10.47	4.81	0.42	8.35	31.89	27.94	74	27.94	31.89	27.94	75
40	Bathinda	Bathinda	46	129	—	2.97	13.60	3.71	0.25	11.37	—	—	76	—	—	—	77
41	Bathinda	Bathinda	3	72	216	0.57	17.74	1.70	0.43	10.22	30.65	36.47	78	36.47	30.65	36.47	79
42	Bathinda	Bathinda	2	85	397	4.21	19.26	3.09	0.26	7.31	31.18	31.18	80	31.18	4.21	31.18	81
43	Bathinda	Bathinda	28	166	—	18.80	1.96	—	—	4.21	24.97	24.24	82	24.24	24.97	24.24	83
44	Bathinda	Bathinda	2	60	159	—	19.11	5.28	0.30	15.09	39.98	46.67	85	46.67	39.98	46.67	86
45	Bathinda	Bathinda	2	70	141	0.22	11.60	3.57	0.15	15.61	31.45	32.75	87	32.75	27.84	32.75	88
46	Bathinda	Bathinda	1	53	142	—	15.49	1.76	0.20	10.30	27.84	38.67	89	38.67	27.84	38.67	89
47	Bathinda	Bathinda	10	700	1,609	0.04	15.34	2.46	0.20	13.90	31.91	34.04	90	34.04	24.16	34.04	91
48	Bathinda	Bathinda	25	83	—	—	12.79	0.23	0.23	5.71	18.95	44.16	92	44.16	—	44.16	92
49	Bathinda	Bathinda	90	293	—	—	15.42	3.54	0.48	8.62	28.06	44.08	93	44.08	—	44.08	93
50	Bathinda	Bathinda	185	233	—	0.20	5.79	2.99	0.60	36.93	46.51	32.69	94	32.69	46.51	32.69	95
51	Bathinda	Bathinda	6	172	325	0.09	10.41	3.28	0.56	16.12	30.47	34.14	96	34.14	21.23	34.14	97
52	Bathinda	Bathinda	119	180	—	0.18	5.00	4.28	1.43	21.23	32.14	31.92	98	31.92	21.23	31.92	99
53	Bathinda	Bathinda	94	213	—	—	16.28	1.49	—	14.04	31.81	33.51	100	33.51	31.81	33.51	101
54	Bathinda	Bathinda	2	165	287	0.47	12.09	1.53	0.23	19.37	33.69	35.14	102	35.14	22.90	35.14	103
55	Bathinda	Bathinda	5	98	223	0.41	10.68	1.23	0.51	10.06	—	—	104	—	—	—	105

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No.	B.—Towns	Population according to Census of 1881.	INJURIES.						
			Cholera	Small-pox	Fever.	Dysentery and diarrhoea.	Males.	Females.	Wounding and acci- dents.
1	2	3	4	5	6	7	8	9	10
Ludhiana District.									
55	Ludhiana	16,021	..	..	648	145	..	..	8
56	Jagraon	18,116	..	..	218	30	..	..	11
57	Raikor	9,381	..	..	142	17	..	..	4
58	Khemka	3,877	..	..	60	7	..	..	1
59	Michiwara	5,349	..	..	97	16	..	..	1
Ferozepore District.									
60	Ferozepore	25,337	..	..	387	81	..	..	4
61	Zira	4,356	..	..	49	4	..	..	1
62	Muklua	1,619	..	..	16	4	..	..	..
63	Dharmkot	6,725	..	..	5	91	21	..	..
64	Muktsar	5,271	..	..	3	79	1	..	..
65	Fazilka	7,563	..	..	1	93	10	..	..
Mooltan District.									
66	Mooltan	44,257	..	..	564	193	..	..	17
67	Kahror	5,498	..	..	81	2	..	..	..
68	Shriabad	6,329	..	..	65	31	..	..	..
69	Jalilpur	3,884	..	..	100	3	..	..	..
70	Talambra	2,702	..	..	3	1	..	..	1
71	Duniapur	2,101	..	..	1	49	..	..	..
Jhang District.									
72	Jhang	8,476	..	..	124	10	..	..	1
73	Maghsia	13,866	..	..	141	39	..	..	6
74	Chinot	13,176	..	..	150	10	..	..	7
Montgomery District.									
75	Montgomery	5,159	..	..	31	8	..	..	4
76	Kamalia	7,490	..	..	95	12	..	..	1
77	Pakpattan	6,522	..	..	92	11	..	..	..
Lahore District.									
78	Lahore	159,597	..	..	3,072	311	..	1	58
79	Sharakpur	4,924	..	..	91	11	..	..	2
80	Chunian	10,339	..	..	202	20	..	..	1
81	Khudian	2,921	..	..	45	2	..	..	1
82	Kasur	20,290	..	..	319	20	..	..	13
83	Khemkarn	5,935	..	..	98	12	..	..	..
84	Patti	7,495	..	..	154	3	..	..	2
Amritsar District.									
85	Amritsar	135,401	..	..	2,915	220	..	1	49
86	Majitha	6,417	..	..	82	18	..	..	..
87	Jandiula	7,732	..	..	202	..	..	..	1
88	Tarn Taran	3,900	..	..	45	13	..	..	1
Gurdaspur District.									
89	Gurdaspur	5,189	..	..	83	11	..	..	2
90	Dinanagar	5,454	..	..	156	2	..	..	..
91	Kalanaur	5,286	..	..	80	16	..	..	1
92	Pathankot	4,749	..	..	131	17	..	..	..
93	Sujanpur	5,796	..	..	92	21	..	..	3
94	Dalhousie	807	..	..	19	4	..	..	..
95	Batala	27,223	..	..	462	40	..	..	15
96	Srigobindpur	4,859	..	..	122	13	..	..	2
97	Dera Nának	5,750	..	..	120	6	..	..	1
Sialkot District.									
98	Sialkot	33,965	..	..	671	99	..	..	15
99	Daska	6,493	..	..	111	18	..	..	4
100	Jámkí	4,629	..	..	55	12	..	..	5
101	Kila Sobha Singh	4,520	..	..	69	3	..	..	4
102	Pasrúr	9,200	..	..	115	17	..	..	..
103	Zafarwál	5,536	..	..	79	9	..	..	..
104	Nárowál	4,898	..	..	86	5	..	..	..

No. VI—*continued.*

ANNUAL FORM

No.	B—Towns	Population according to Census of 1891.	INJURIES.							
			Cholera.	Small-pox	Fever.	Typhus and diarrhoea.	Suicide.	Males	Females	Wounding and acci- dents.
1	2	3	4	5	6	7	8	9	10	
Gujrat District										
105	Gujrat	17,671	..	..	325	27	1	..	..	5
106	Jaffarpur	11,065	..	..	175	61	..	..	..	6
107	Karachi	5,474	..	..	84	18	..	..	..	2
108	Dera	5,424	..	..	85	5	..	..	..	2
Gujranwala District										
109	Gujranwala	25,892	..	..	352	15	..	..	..	5
110	Vazirabad	15,786	..	..	402	73	..	..	..	9
111	Emmatal	5,841	..	..	110	..	..	..	..	3
112	Kila D'dar Singh	2,843	..	..	61	..	..	..	..	1
113	Arabgah	4,282	..	..	63	..	..	..	..	..
114	Ranawar	6,592	..	..	149	10	..	..	..	1
Shahpur District										
115	Batra	17,428	..	..	221	61	..	..	..	7
116	Shahpur	6,387	..	..	107	9	..	..	..	1
117	Spiriwad	4,210	..	..	151	17	..	..	..	1
118	Mohi	7,149	..	..	102	33	..	..	..	1
119	Khalidpur	9,882	..	..	91	37	..	..	..	2
Jhelum District										
120	Jhelum	9,711	..	..	249	11	..	..	..	7
121	Pind Dadan Khan	15,053	..	..	301	125	..	..	..	4
Rawalpindi District										
122	Rawalpindi	38,331	..	..	914	71	..	..	..	14
123	Mianee	1,450	..	..	25	..	..	..	..	2
124	Pindigali	8,402	..	..	154	6	..	..	..	1
125	Hazro	9,261	..	..	138	6	..	..	..	2
126	Attock	2,654	..	..	64	7	..	..	..	..
Hazara District										
127	Abbottabad	2,242	..	..	16	1	..	..	..	..
128	Nauvalahar	3,885	..	..	54	2	..	..	..	1
129	Batta	7,437	..	..	206	4	..	..	..	7
130	Hajipur	5,419	..	..	64	9	..	..	..	..
Peshawar District										
131	Peshawar	63,079	..	..	1,307	81	..	..	..	24
Kohat District										
132	Kohat	14,347	..	..	6	225	25	..	..	2
Bannu District										
133	Edwardesabad	6,095	..	..	176	33	..	..	..	18
134	Jai Kela	7,600	..	..	140	12	..	..	..	3
135	Kot Gahbi	6,702	..	..	186	43	..	..	..	4
136	Lakki	1,488	..	..	141	19	..	..	..	3
Dera Ismail Khan District										
137	Dera Ismail Khan	21,573	..	..	2	662	168	..	..	13
138	Kulachi	9,447	..	..	5	100	8	..	..	2
139	Blakkar	5,210	..	..	..	167	..	..	..	1
140	Leish	7,437	..	..	2	130	5	..	..	..
141	Karor	2,833	..	..	2	88	6	..	..	3
Dera Ghazi Khan District										
142	Dera Ghazi Khan	23,899	..	..	6	426	70	..	..	10
143	Jampur	5,815	..	..	1	97	9	..	..	5
144	Dajal	6,085	..	..	..	215	20	..	..	1
145	Rajanpur	4,064	..	..	..	86	2	..	..	1
146	Kot Mithan	3,624	..	..	..	84	..	..	..	..
Muzaffargarh District										
147	Muzaffargarh	3,058	..	..	1	66	10	..	..	..
148	Khanganh	3,505	..	..	..	80	11	..	..	1
149	Alipur	2,552	..	..	..	63	4	..	..	..
150	Khairpur	2,424	..	..	..	71	1	..	..	1
Total		2,010,300	3	432	35,065	4,400	20	11	627	
Total for the Province		20,553,982	3	4,998	418,206	15,747	148	203	5,628	

Note.—The population of Europeans and Eurasians not being available separately for towns, it could not be excluded from the

No. VI—concluded.

Snake-bites and killed by wild beasts.	Total.	All other causes.	Total deaths from all causes.	RATIO OF DEATHS PER 1,000 OF POPULATION.								From all causes. For the year.	No			
				9		10		11								
				11	12	13	14	Cholera.	Small-pox.	Pest.	Hysteria and dini- thect.	Injuries.	19	20	21	22	23
				285	646	..	..	18.99	1.53	0.31	16.80	30.56	31.00	105
				226	468	..	..	15.82	5.51	0.51	20.42	12.30	33.00	106
				67	171	..	..	15.35	3.29	0.37	12.21	31.24	26.81	107
				77	172	..	..	16.22	0.92	0.37	11.20	31.71	25.63	108
				275	647	..	..	13.50	0.58	0.19	16.02	24.90	27.02	109
				286	771	..	..	25.47	4.62	0.57	18.12	18.84	34.53	110
				115	233	..	..	18.83	..	0.86	20.20	39.80	30.68	111
				22	84	..	..	21.46	..	0.35	20.55	24.48	112	
				33	101	..	..	15.49	0.47	..	7.71	23.70	19.43	113
				114	275	..	..	22.60	1.52	0.30	17.29	41.72	32.28	114
				225	519	0.06	12.65	3.67	0.16	12.91	29.78	30.96	115	
				45	162	..	..	16.88	1.42	0.16	7.10	25.53	27.81	116
				116	290	..	..	16.72	1.85	0.22	12.60	31.49	31.49	117
				82	219	..	..	14.27	4.02	0.28	11.47	30.63	26.61	118
				78	209	..	..	9.26	3.76	0.20	7.93	21.16	26.60	119
				49	816	..	..	25.64	1.13	0.72	5.05	32.54	26.46	120
				95	526	..	..	19.99	5.80	0.38	6.81	34.04	36.73	121
				153	1,453	..	..	23.84	1.85	0.39	11.82	37.90	38.53	122
				21	48	..	..	17.14	1.37	..	14.39	32.90	32.49	123
				3	43	..	..	18.20	0.71	0.35	5.08	24.34	26.57	124
				105	254	..	..	14.90	0.65	0.22	11.66	27.43	29.48	125
				45	118	..	..	24.11	2.61	0.75	16.96	44.40	44.76	126
				13	30	..	..	7.14	0.45	..	5.80	13.38	17.37	127
				58	115	..	..	13.90	0.51	0.26	14.93	29.60	37.68	128
				30	247	..	..	27.70	0.54	0.04	4.08	33.21	40.68	129
				58	131	..	..	11.81	1.66	..	10.70	24.17	30.68	130
				26	446	1,863	..	0.05	20.72	1.28	0.41	7.07	20.53	32.68	131	
				3	152	411	..	0.42	15.68	1.74	0.21	10.50	28.65	31.60	132	
				18	97	324	..		28.88	5.41	2.95	15.91	53.16	36.95	133	
				4	40	196	..		18.42	1.58	0.53	5.26	25.79	21.76	134	
				5	24	266	..		27.73	0.71	0.75	3.58	38.79	37.84	135	
				3	49	212	..		31.42	4.23	0.67	10.92	47.24	30.94	136	
				17	313	1,102	..	0.09	30.60	7.70	0.79	14.51	53.86	47.97	137	
				3	52	168	..	0.53	10.59	0.85	0.32	5.50	17.78	15.48	138	
				1	51	226	..		32.05	1.34	0.19	9.79	43.38	40.88	139	
				1	27	174	..	0.27	18.60	0.67	0.13	3.63	23.40	25.63	140	
				3	34	133	..	0.71	31.06	2.12	1.06	12.00	46.93	42.43	141	
				11	205	718	..	0.25	17.63	2.93	0.46	8.58	30.04	32.43	142	
				6	72	185	..	0.17	16.68	1.55	1.03	12.38	31.81	24.69	143	
				1	78	314	..		35.33	3.20	0.16	12.82	51.60	31.26	144	
				2	27	117	..		21.16	0.49	0.49	6.64	28.79	25.49	145	
				1	1	86	..		23.18	..	0.28	0.28	23.73	20.30	146	
				1	28	105	..		21.53	3.27	0.33	9.16	34.34	42.05	147	
				2	25	120	..	0.29	22.82	3.14	0.86	7.13	34.24	40.11	148	
				16	85	..			25.47	1.57	..	6.27	33.31	42.08	149	
				..	1	50	123	..	29.29	0.41	0.41	20.63	50.74	57.43	150	
67	725	25,814	66,439	0.001		0.21	17.44	2.19	0.30	12.84	33.05	35.36				
1,344	7,823	191,847	638,124	...		0.24	20.35	0.77	0.36	9.33	31.05	31.80				

population of towns and rural circles. Their number 8,342 is, however, excluded from the total population of the Province.

APPENDIX TO ANNUAL FORM No. VI.

DEATHS REGISTERED IN THE CANTONMENTS OF THE PUNJAB DURING THE YEAR 1898.

No.	Names of Cantonments	Population according to census of 1891.						Injuries.						Deaths.					
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
		Cholera.	Small pox.	Liver.	Dysentery and diarrhoea.	Measles.	Fever.	Wounding and accidents.	Snake-bite and killed by wild beasts.	Total	All other causes.	Total deaths from all causes.	Ratio of deaths per 1,000 of population.	Total births registered during the year.	Ratio of births per 1,000 of population.	No.			
1	D. I.	2,101	.	23	.	.	.	1	1	12	8	33	11	18	6	1			
2	G. T.	51,116	30	..	756	..	1	2	..	613	1,406	28	670	18	2				
3	K. M.	1,077	.	20	.	.	.	..	..	23	52	26	60	30	3
4	Dagoda	2,569	.	..	11	2	.	..	..	11	24	9	27	11	4	
5	S. R.	2,171	.	..	29	3	..	1	..	1	28	61	28	60	28	5			
6	J. S.	557	.	..	6	2	..	..	..	8	16	29	15	27	3	
7	B. A.	8,106	.	..	9	2	..	2	..	2	60	73	21	54	16	7			
8	Jullundur	15,827	2	..	119	1	1	1	65	218	14	122	8	8			
9	Ferozepore	25,100	.	..	568	4	..	..	..	52	621	25	418	17	9	
10	Mooltan	10,207	.	..	74	1	..	..	..	39	114	11	96	9	10	
11	Mian Mandi	17,257	.	..	117	11	..	..	2	51	182	11	79	5	11		
12	Amaritsar	1,365	.	..	19	..	1	..	..	..	20	15	13	10	12	
13	Dilawri	125	.	..	2	..	..	..	1	7	10	24	9	21	13	
14	Bukloh	2,503	.	..	16	1	..	..	..	7	24	10	39	16	14	
15	Sialkot	21,122	.	..	166	1	..	..	..	79	246	12	257	12	15	
16	Jhelum	3,167	.	..	9	1	..	..	..	1	11	8	19	6	16	
17	Rawalpindi	37,470	.	..	220	61	1	..	4	5	8	297	8	173	5	17			
18	Campbellpore	2,556	.	..	83	10	..	..	..	7	41	16	51	20	18	
19	Murree	309	.	..	9	..	..	..	..	5	14	45	16	52	19
20	Attock	419	.	..	2	..	..	..	..	2	4	10	..	..	20
21	Abbottabad	7,750	.	..	10	3	..	..	..	45	58	7	100	13	21	
22	Peshawar	21,112	.	..	98	45	1	..	2	3	116	237	12	40	2	22			
23	Nowshera	6,885	.	..	48	4	1	..	2	3	8	63	9	52	8	23			
24	Mardan	3,587	.	..	15	3	..	..	..	15	33	9	15	4	24	
25	Kohat	12,650	.	..	9	25	..	..	1	41	76	6	9	1	25		
26	Edwardesabad	2,267	.	..	6	2	..	..	1	57	66	29	5	2	26		
27	Dera Ismail Khan	3,638	.	..	4	..	..	..	..	21	25	7	1	..	27
28	Dera Ghazi Khan	3,237	.	..	15	3	..	..	2	14	34	11	16	5	28		
	Total	263,926	30	2	2,447	179	5	...	23	2	30	1,391	4,079	15	2,432	9			

ANNUAL FORM No. VII.

DEATHS REGISTERED FROM CHOLERA IN THE DISTRICTS OF THE PUNJAB DURING EACH MONTH OF THE
YEAR 1858.

ANNUAL FORM

DEATHS REGISTERED FROM SMALL-POX IN THE DISTRICTS

No.	DISTRICTS.	CHI.LES OF REGISTRATION		TOWNS AND VILLAGES.		MONTHS							
		Number in each district,	Number from which deaths from small- pox were reported	Number in each district,	Number from which deaths from small- pox were reported	JANUARY.	FEBRUARY.	MARCH.	APRIL.	MAY.	JUNE.	JULY.	
1	2	3	4	5	6	7	8	9	10	11	12	13	
Delhi Division.													
1	Hissár	27	15	1,069	61	4	1	1	9	2	23	7	
2	Rewāk	15	3	514	5	..	2	1	..	1	1	1	
3	Gurjón	21	12	1,264	43	6	9	8	19	31	46	18	
4	Delhi	19	9	813	10	2	1	1	8	30	40	16	
5	Kainál	26	18	1,421	65	5	15	26	55	171	22	6	
6	Umballa	18	1	1,811	102	9	12	20	57	133	255	190	
7	Simla	4		105	..	..	..	..	..	..	..	..
Jullundur Division.													
8	Kángra	18	1	778	1	..	..	..	..	..	..	3
9	Hoshiárpur	21	..	2,189	102	21	30	35	58	53	42	22	
10	Jullundur	19	8	1,356	67	..	5	10	15	14	15	11	
11	Lndhiána	15	10	906	99	6	11	12	19	34	27	15	
12	Ferezepore	2*	2	1,615	241	16	15	21	28	48	68	41	
Lahore Division.													
13	Moolán	20	11	1,593	15	6	2	1	2	6	4	1	
14	Jhang	17	13	849	15	1	2	6	1	3	3	2	
15	Montgomery	21	20	2,626	141	11	16	10	17	40	46	39	
16	Lahore	20	24	1,672	140	35	26	23	22	41	39	19	
17	Amritsar	14	14	1,104	241	20	18	16	34	44	76	51	
18	Gurdíspur	25	19	2,401	71	17	13	19	24	33	31	21	
Rawalpindi Division.													
19	Siálkot	21	21	2,272	213	45	78	49	48	111	110	66	
20	Gujrát	13	4	1,440	11	1	1	1	1	4	8	2	
21	Gujránwála	17	3	1,241	5	1	1	..	..	1	..	1
22	Shahpur	20	7	838	7	2	..	1	2	2	1	1	
23	Jhelum	16	9	1,077	17	11	14	6	11	1	..	1	
24	Ráwalpindi	24	10	1,841	59	16	12	18	14	13	4	3	
Peshawar Division.													
25	Hazára	18	9	886	84	19	27	14	9	15	20	13	
26	Peshawar	21	16	767	79	32	23	19	6	..	3	2	
27	Kohát	12	9	277	23	7	7	5	6	9	6	8	
Derajat Division.													
28	Bannu	19	1	490	1	..	..	1	..	..	3	..
29	Dera Ismail Khan	21	16	835	29	2	4	22	21	15	9	5	
30	Dera Gházi Khan	21	16	760	45	8	11	10	17	20	24	9	
31	Muzaffargarh	18	10	762	15	9	4	9	6	8	3	3	
Total for the Province ..		598	371	37,602	2,306	323	363	367	479	886	927	604	

No. VIII.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1898.

						6			7		8			9	10
						TOTAL			NUMBER OF DEATHS AMONG CHILDREN.		TOTAL RATIO OF DEATHS PER 1,000 OF POPULATION.				
August,	September,	October,	November,	December,		Males,	Females,	Total,	Under one year.	Over one and under 10 years.	Males,	Females,	Total.	Mean ratio per 1,000 for previous five years.	No.
14	15	16	17	18	19	20	21		22	23	24	25	26	27	28
10	2	3	2	6	42	31	73		7	56	0·10	0·09	0·09	1·26	1
..	2	..	..	1	4	5	9		3	4	0·01	0·02	0·02	0·17	2
13	6	..	..	..	97	89	186		44	137	0·28	0·28	0·28	1·40	3
2	2	1	..	2	55	50	105		17	80	0·16	0·17	0·17	0·55	4
6	10	9	13	..	183	155	338		95	240	0·39	0·39	0·39	1·02	5
90	48	24	8	18	451	412	863		169	627	1·03	1·13	1·07	1·48	6
..	..	..	..	..	..	..	..		..	..	..	..	..	0·15	7
..	..	..	..	..	2	1	3		..	..	0·01	0·002	0·003	0·02	8
9	7	1	4	7	117	145	262		73	136	0·22	0·31	0·26	0·25	9
3	1	5	11	18	58	56	114		36	61	0·12	0·14	0·13	0·41	10
8	7	4	4	4	86	65	151		20	120	0·24	0·22	0·23	1·04	11
34	19	19	12	13	190	139	329		51	233	0·40	0·35	0·38	1·52	12
3	6	..	..	2	13	20	33		2	19	0·04	0·07	0·05	0·44	13
..	3	2	..	4	15	12	27		16	9	0·06	0·06	0·06	0·89	14
26	13	10	20	22	133	140	273		52	197	0·49	0·61	0·55	1·25	15
20	32	23	21	18	171	153	324		62	231	0·30	0·32	0·31	1·03	16
28	23	12	9	1	186	146	332		63	240	0·34	0·33	0·34	0·49	17
17	6	2	..	8	80	111	191		42	127	0·16	0·26	0·20	0·19	18
33	20	20	19	16	328	287	615		159	400	0·56	0·56	0·56	0·46	19
..	..	..	..	..	13	5	18		4	11	0·03	0·01	0·02	0·67	20
..	..	..	2	3	6	3	9		5	3	0·02	0·01	0·01	0·45	21
..	..	..	..	..	5	4	9		3	5	0·02	0·02	0·02	1·17	22
..	..	..	..	..	28	16	44		21	18	0·09	0·06	0·07	0·69	23
..	1	2	3	..	45	41	86		34	35	0·10	0·10	0·10	0·73	24
4	..	..	..	..	55	66	121		22	86	0·22	0·30	0·25	1·03	25
4	2	9	7	18	75	50	125		62	62	0·21	0·16	0·18	1·39	26
1	3	12	12	20	44	52	96		17	74	0·46	0·61	0·53	0·84	27
..	..	..	..	..	2	2	4		..	3	0·01	0·01	0·01	1·56	28
10	2	4	1	12	63	44	107		20	82	0·24	0·20	0·22	0·81	29
2	..	..	..	..	47	54	101		21	60	0·22	0·30	0·25	0·27	30
3	1	4	..	..	22	28	50		10	25	0·11	0·16	0·18	0·44	31
326	216	166	148	193	2,616	2,382	4,998		1,130	3,381	0·24	0·25	0·24	0·78	

ANNUAL FORM

DEATHS REGISTERED FROM FEVERS IN THE DISTRICTS

1	2	3	4			5						
			CIRCLES OF REGISTRATION.		TOWNS AND VILLAGES.	MONTHS						
No.	DISTRICTS		Number in each dis- trict	Number from which deaths from fever were reported	Number in each dis- trict	Number from which deaths from fever were reported.	Jannuay	Febuary	March	April	May	June
1	2	3	4	5	6	7	8	9	10	11	12	
Delhi Division												
1	Il	.	27	27	1,000	1,000	1,172	957	1,070	1,100	1,208	1,502
2	Re	.	15	15	511	500	516	613	938	1,019	1,025	1,880
3	G	.	21	21	1,251	1,264	1,227	908	1,328	1,470	1,655	1,840
4	De	..	19	19	613	685	618	615	834	998	1,111	1,321
5	K	..	26	26	1,421	1,393	1,050	1,301	1,831	1,428	2,222	2,217
6	Un	..	18	18	1,811	1,612	1,382	913	1,030	1,228	1,491	1,506
7	Sn	..	4	4	165	132	21	19	38	21	87	31
Jullundur Division												
8	Ki	.	18	18	778	722	1,100	888	951	1,504	1,414	1,509
9	Hos	..	21	21	2,180	1,663	1,001	770	777	943	1,184	1,285
10	J.	..	19	19	1,356	1,103	959	654	682	832	1,167	1,120
11	Lu	..	15	15	906	847	908	717	725	955	1,160	1,196
12	Fel	..	25	25	1,645	1,170	1,616	1,050	988	1,082	1,542	1,894
Lahore Division												
13	Moh	..	20	20	1,593	1,812	1,835	1,043	916	788	1,150	980
14	Jhan	..	17	17	819	832	1,147	651	171	123	171	976
15	Mon	..	21	21	2,026	985	730	475	372	326	467	506
16	La	..	29	29	1,672	1,637	1,599	1,081	1,014	1,082	1,740	1,929
17	An	..	14	14	1,104	1,039	1,128	862	980	1,092	1,636	1,885
18	Gu	..	25	25	2,401	2,050	1,207	922	966	1,174	1,652	1,568
Rawalpindi Division.												
19	Sialkot	..	21	21	2,272	1,994	1,336	1,143	1,107	1,204	1,886	1,737
20	Gupi	..	13	13	1,440	1,257	1,119	722	639	727	971	1,074
21	Guj	..	17	17	1,241	1,240	1,457	1,090	1,153	1,024	1,895	1,735
22	Shahpur	..	20	20	838	835	1,232	711	609	558	696	753
23	Jhelum	..	16	16	1,077	987	1,514	881	737	682	795	883
24	Rawalpindi	..	24	21	1,841	1,681	2,400	1,433	1,251	1,153	1,316	1,288
Peshawar Division												
25	Haz	..	18	18	886	611	840	616	685	440	452	506
26	Pes	..	21	21	767	723	1,296	1,260	1,066	975	1,227	1,153
27	Kon	..	12	12	277	277	767	540	369	290	221	219
Derajat Division.												
28	Bannu	..	19	19	490	488	1,965	1,140	843	854	567	752
29	Dera Ismail Khan	..	21	21	835	805	2,386	1,522	1,950	1,053	1,256	1,458
30	Dera Ghazi Khan	..	21	21	760	465	1,393	785	734	1,674	688	549
31	Muzaffargarh	..	18	18	762	599	1,325	885	984	1,009	757	558
TOTAL FOR THE PROVINCE			598	598	37,602	31,853	40,567	27,263	27,173	28,808	34,822	36,884

No. IX.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1898.

July	August	September	October	November	December	Males	6		7		8		N. No.	
							TOTAL		TOTAL RATIO OF DEATHS PER 1,000 OF POPULATION					
							Per 1,000 from fifteen years and over	Total	Males	Females	Per 1,000 from fifteen years and over	Total		
13	14	15	16	17	18	19	20	21	22	23	24	25	26	
1,287	1,288	1,262	1,577	1,490	1,296	7,914	7,621	15,508	1618	2112	2000	2272	1	
811	974	884	1,201	1,527	950	6,551	5,847	12,228	1420	2150	2071	2060	2	
1,314	1,265	1,425	1,258	1,733	1,958	9,652	9,003	17,412	2355	2623	2503	2581	2	
916	886	941	1,151	1,107	1,243	5,933	6,196	12,121	1713	2111	2111	2114	3	
1,889	1,634	1,576	2,208	1,698	1,874	11,912	10,5	21,570	2355	2640	2570	2582	5	
1,207	1,032	1,316	1,063	1,491	1,300	8,058	7,707	15,735	1537	2105	1950	2571	6	
26	45	35	28	24	19	190	151	211	857	1177	976	1101	7	
761	1,610	1,774	1,163	1,129	1,311	7,830	7,737	15,503	1983	2125	2051	2297	8	
1,010	1,214	2,022	2,173	1,637	1,153	7,651	7,570	15,181	1417	1660	1530	2149	9	
943	1,038	1,000	1,357	1,222	1,097	6,097	6,335	12,872	1253	1545	1385	2031	10	
881	1,100	1,154	1,327	1,210	1,025	6,059	6,303	12,451	1718	2102	1920	2142	11	
1,073	1,101	1,081	1,537	1,688	1,507	7,978	7,813	15,741	1679	2005	1927	1746	12	
728	682	600	1,008	1,386	1,200	6,515	5,718	12,206	1919	2014	1976	1915	13	
770	777	665	826	1,276	1,240	4,876	4,256	9,182	2088	2091	2091	1597	14	
316	287	300	390	511	529	2,780	2,517	5,247	1013	1095	1051	1250	15	
1,518	1,579	1,720	2,517	2,481	2,110	10,583	9,896	20,179	1527	2077	1940	1918	16	
1,455	1,721	1,941	2,261	2,205	1,572	9,450	9,563	18,904	1713	2123	1917	2142	17	
1,302	1,560	2,070	2,053	2,230	1,708	9,700	9,351	19,141	1909	2183	2035	2233	18	
1,499	1,926	2,725	2,303	2,821	2,278	11,498	11,467	22,965	1907	2231	2090	1941	19	
974	1,187	1,605	1,847	1,676	1,513	7,100	6,965	11,074	1773	1933	1850	1181	20	
1,362	1,610	1,505	1,680	2,272	1,826	9,680	8,973	18,612	2543	2584	2697	2149	21	
618	581	448	591	701	827	4,150	4,119	8,278	1611	1750	1677	1137	22	
815	862	1,087	1,472	1,408	1,388	6,241	6,186	12,427	1981	2128	2051	1676	20	
1,171	1,237	1,459	2,103	2,301	2,112	9,863	9,423	19,286	2204	2369	2282	2235	24	
453	511	583	744	638	674	3,505	3,579	7,057	1386	1605	1488	1784	25	
1,013	1,065	922	1,015	1,078	1,207	7,472	5,900	13,372	2067	1857	1969	1825	26	
264	254	257	430	408	517	2,312	2,224	4,536	2304	2589	2486	2495	27	
603	490	611	661	835	1,036	5,463	4,894	10,357	2794	2805	2799	2239	28	
715	556	805	1,027	1,406	1,423	8,054	7,500	15,563	3129	3337	3226	2323	29	
447	706	513	775	745	693	5,393	4,309	9,702	2170	2374	2426	2298	30	
499	516	531	832	1,147	976	5,265	4,754	10,019	2545	2730	2629	2516	31	
28,692	31,221	35,070	43,075	43,824	40,807	213,917	204,289	418,206	1938	2147	2035	2056		

ANNUAL FORM

DEATHS REGISTERED FROM DYSENTERY AND DIARRHEA IN THE DISTRICTS

1	2	3		4		5					
		CIRCLES OF REGISTRATION.		TOWNS AND VILLAGES.		MONTHS					
No.	DISTRICTS.	Number in each dis- trict.	Number from which deaths from dysen- tery and diarrhoea were reported.	Number in each dis- trict.	Number from which deaths from dysen- tery and diarrhoea were reported.	January.	February.	March.	April.	May.	June.
1	2	3	4	5	6	7	8	9	10	11	12
Delhi Division.											
1	Hissár	27	27	1,009	150	52	27	16	29	34	47
2	Rohtak	15	15	514	295	24	15	13	8	16	16
3	Gurgión	21	21	1,264	232	62	35	33	49	60	62
4	Delhi	19	19	813	240	58	24	34	43	52	83
5	Karnál	26	26	1,421	145	33	23	38	43	54	55
6	Umballa	18	18	1,811	280	39	28	30	27	38	53
7	Simla	4	4	165	18	4	2	2	1	4	9
Jullundur Division.											
8	Kángra	18	18	778	388	56	39	40	42	79	99
9	Hoshiárpur	24	24	2,189	354	30	49	52	108	98	64
10	Jullundur	19	19	1,356	142	32	13	35	64	62	51
11	Ludhjána	15	15	906	116	45	20	20	37	40	22
12	Ferozepore	25	25	1,645	150	15	16	39	48	61	42
Lahore Division.											
13	Mooltan	20	20	1,593	37	55	23	24	28	30	20
14	Jhang	17	17	849	95	41	21	13	17	29	30
15	Montgomery	21	21	2,626	119	22	14	11	15	11	22
16	Lahore	20	20	1,672	144	31	26	23	34	46	36
17	Amritsar	14	13	1,104	255	56	36	39	42	68	66
18	Gurdáspur	25	25	2,401	559	41	31	30	63	114	66
Rawalpindi Division.											
19	Siálkot	21	21	2,272	435	15	31	33	47	107	74
20	Gujrát	13	13	1,446	215	13	14	12	24	23	15
21	Gujránwála	17	15	1,241	70	14	1	3	8	20	9
22	Shahpur	20	20	838	150	41	32	19	26	30	36
23	Jhelum	16	16	1,077	115	33	23	15	19	31	44
24	Ráwalpindi	24	21	1,841	38	20	8	6	5	11	12
Peshawar Division.											
25	Hazára	18	11	886	16	...	5	2	1	...	3
26	Peshawar	21	17	767	109	13	13	24	16	17	10
27	Kohát	12	5	277	9	7	1	1	3	2	2
Derajat Division.											
28	Bannu	19	15	490	55	35	12	11	13	15	9
29	Dera Ismail Khan	21	21	835	135	66	38	43	22	46	32
30	Dera Ghází Khan	21	17	760	65	35	21	6	9	14	8
31	Muzaffargarh	18	19	762	69	51	23	26	5	5	8
TOTAL FOR THE PROVINCE ...		598	565	37,602	5,200	1,108	694	698	896	1,217	1,105

No. X.

OF THE PUNJAB DURING EACH MONTH OF THE YEAR 1898.

July	August	September	October	November	December	Males	Females	6		7		8		
								TOTAL		RATIO OF DEATHS FOR 1,000 OF POPULATION		Mean ratio per 1,000 for pre- vious five years.		
								13	14	15	16	17	18	19
51	77	59	49	50	76	265	128	528	671	668	667	691	1	
17	39	27	39	72	49	171	105	326	655	656	655	664	2	
89	81	108	121	88	122	438	220	178	142	162	167	154	3	
62	66	78	73	77	88	424	214	744	124	106	116	153	4	
17	60	50	53	76	62	550	25	660	675	664	670	110	5	
50	52	89	74	68	55	379	220	612	650	671	676	124	6	
18	11	5	4	8	2	35	22	15	159	252	193	220	7	
54	56	65	48	49	43	358	312	670	691	685	686	102	8	
61	108	151	180	145	59	580	528	1,108	107	112	110	69	9	
49	73	37	112	87	45	367	353	720	676	686	681	676	10	
24	85	55	56	38	25	226	191	417	64	65	64	689	11	
43	78	64	68	56	50	356	284	640	676	672	674	666	12	
25	20	47	57	42	52	237	105	432	670	669	670	692	13	
17	34	32	23	27	35	198	181	320	655	664	675	662	14	
14	12	13	32	17	14	118	79	197	644	634	639	643	15	
45	61	87	114	90	73	410	256	686	671	654	663	656	16	
32	83	140	162	120	94	576	302	968	106	687	698	124	17	
74	198	302	287	208	100	863	744	1,607	169	173	171	114	18	
62	98	259	226	123	84	692	498	1,190	118	697	708	102	19	
15	43	120	121	75	25	289	220	500	672	661	667	640	20	
10	23	32	24	24	21	115	74	180	630	624	627	626	21	
36	54	40	51	46	40	246	209	455	695	689	692	668	22	
34	43	36	66	40	24	214	194	408	665	667	667	643	23	
17	18	22	24	14	10	114	53	167	625	618	620	617	24	
4	1	2	4	7	2	16	15	31	666	667	667	611	25	
7	13	12	12	13	9	113	46	159	631	614	623	621	26	
1	4	4	5	4	1	20	15	35	621	617	619	617	27	
8	15	13	14	15	11	96	75	171	649	643	646	637	28	
30	42	55	55	52	44	285	240	525	111	107	109	664	29	
9	20	13	17	14	6	94	78	172	643	643	643	625	30	
12	9	5	19	22	16	118	83	201	657	648	658	648	31	
1,054	1,536	2,184	2,192	1,771	1,292	6,827	6,920	15,747	680	673	677	677		

STATEMENT NO. XI.

STATEMENT SHOWING THE CHIEF SANITARY DEFECTS IN THE MUNICIPALITIES OF THE PUNJAB DURING THE YEAR 1893.

No.	District.	Name of Municipality.	CHIEF SANITARY DEFECTS.			Kmperial measures adopted.	8
			5	6	7		
1	Hissar	Water supply.	16,854	3679	The supply is obtained from wells. The water of the wells in the town is very hard, but in those outside it is good.	All the depressions inside or outside the town have been filled in; a scheme for the drainage of the low parts of land to the east of the town from Mori Gate, including the Gali and Gidha Mohalla, is under consideration of the Committee. Rs. 313 in d. Rs. 2,477 were spent respectively on drainage and water-supply.	1
2	Hansi	Drainage.	15,190	2791	Water is obtained from wells. Those in the town are slightly brackish and contaminated by sewage; those outside have much better water. A branch of the Western Jumna Canal runs partly round the town and its water is used for washing clothes and bathing.	Drainage scheme is still under consideration.	2
3	Bhitwani	Water supply.	35,487	3170	The water-supply is most defective. There are two wells outside the town, the water of which is good, but all the wells in the city are either brackish or contaminated, and this polluted water is chiefly used, the charge for drawing water from the two good wells outside the town being very high.	The work of construction of water-works, it is hoped, will be commenced with effect from the 1st April 1890. The pipes, &c., will be received here during the month of February 1890. Rs. 2,215 and Rs. 225 were spent on water-supply and repairs to latrines respectively.	3
4	Sirsa	Water supply.	16,415	3497	A good water-supply is a pressing necessity.	Some drinking wells have been cleared and three wells have been provided with parapets. Rs. 755 were spent on pavements.	4

5	Fatehabad	...	2,848	22:12	.....							
6	Rohak	...	16,181	26:18	Water generally saltish or brackish	...	...				
7	Jhajjar	...	11,681	25:42	Water for drinking purposes is obtained from wells outside the town, but these are contaminated by town drainage, and one considered the best, is near a graveyard. The wells inside the city are brackish. Tanks outside the town are used for bathing and washing.	...							
8	Bori	...	9,825	27:38	Water is obtained from wells outside the town. These wells are suspicious, as the drainage of the town finds its way into them. The wells inside the town are brackish and are used for bathing purposes, &c.	...							
9	Gobindas	...	7,690	25:10	Water generally saltish or brackish	...	...				
10	Bahadurgarh	...	6,103	24:58	ditto	ditto	...						
11	Rewari	...	27,934	22:20	The wells inside the town are pokka, but contain water impregnated with lime and salts. The wells containing drinking water outside the town are not protected. Water stagnates in the pond adjoining, and there are other obvious sources of contamination.	...	...				
12	Palwal	...	11,227	4:48a	The wells are pokka and contain water of a fair quality; in some, however, there is a distinct smell of sulphuric acid hydrogen probably owing to their not being cleaned thoroughly and periodically, and also to their being situated in localities where water stagnates and gets polluted.	...	...				
13	Farrukhnagar	...	5,981	36:05	Drinking water is obtained from wells, which are fairly well protected, but they are not as clean as it is intended to be.	...	...				
14	Gurbagon	...	.....	1:22	The drains are choked up in some parts of the town. There is no proper arrangement for the removal of sweepings, &c.	...	...				
15				12	Rs. 1,551 and Rs. 119/- were spent on payment of water-supply respectively.	...	...				
16				13	Rs. 40/- were spent on drainage	...	...				

STATEMENT NO. XI—*continued.*

No.	District.	Name of Municipality.	Population according to census of 1931.	Total death-rates per 1,000 of population.	CHIEF SANITARY DEFECTS.		Beneficial measures adopted
					5	6	
14	Firozpur	...	6,949	34.02	Water supply is obtained from wells, and not protected from pollution.	The main bazaar is metalled with <i>Indur</i> , the smaller streets are paved with stone, and the lanes are in paved. The roads and lanes are sometimes flooded, and the surrounding country rendered muddy by the mudic obstruction caused by a bridge to the flow of water in the adjacent stream.	Ni
15	Sohna	...	5,950	38.06	Drinking water is obtained from wells near the upper end of the town. There are wells near some hot springs, but the water is brackish and warm.	The principal streets are metalled and have side lanes; no improved solid drainage. The arrangements for the removal of sewage are defective.	15
16	Hodal	...	9,601	29.00	Drinking water is obtained from wells, both inside and outside the town. The water in some of these is brackish.	Many of the old underground drains, which become blocked frequently and at all times a frightful nuisance, still exist. All these require to be replaced by surface drains. No drains at all in Salri Mandi, Suan Barat and Tali. Inaj districts, and drains are urgently required.	16
17	Delhi	...	169,648	33.68	The Delhi Waterworks Scheme was completed in 1893.	The Delhi Waterworks Scheme was completed in 1893.	17

DELHI.

At present, some of the sewage water in the salaried wards is collected in cesspools attached to each house and carried away in urine carts, but the whole is not removed for the want of sufficient carts. A requisition for more carts has been made to the Municipal Committee. Steps are being taken whenever reports are made to close down, or to connect them with the drains.

An estimate amounting to Rs. 6,00,000 has been prepared by the Public Works Department for open drains to replace the old underground drains inside the city walls. Out of this sum Rs. 25,000 has been spent by the Public Works Department, and there is no more money now to spend. To provide funds for repayment of principal and interest of the loan of 6 lakhs the Committee has set up proposals for (1) raising open drains to replace the old underground drains inside the city walls, out of municipal limits, (2) levying toll on crafts coming into municipal limits, but the latter is, till pending with Government. When these proposals are sanctioned, further steps will be taken about the loan required. About the salaried wards no project for draining has yet been made, it is probable we will require another 6 lakhs at least for drains in those wards.

18	Sonepat	...	12,611	29-42	Sufficient and is obtained from wells outside the town for drinking and cooking purposes. The water from wells in the town is brackish and is used for other domestic purposes.	A good drainage system is required. Night-soil is at present removed by sweepers to fields outside the town, where it is collected in heaps and sold annually. Only the main brackish and a few lanes have <i>khadar</i> drains, but these are so badly constructed as to be almost useless.	The Sonipat Municipal Committee have paved many streets within the last two years, and also built surface drains, but there is still a want of complete drainage.	Rs. 3221, Rs. 39,262 and Rs. 181 were spent on draining, water-supply and repairs to latrines, respectively.	18
19	Balaghat	..	4,471	32-41	The water supply is obtained from wells, but it is not good. Good canal water is to be had two miles from the town.	There is no system of house drainage. Most of the lands are unbroken, and water used for domestic purposes is thrown into them, and stagnates there. Children use the lanes as latrines, and the town is in an unsanitary condition. The drains are not of proper section, nor laid to level, consequently the contaminated water which finds its way into them collects and stagnates.	An estimate for Rs. 2,220 was prepared for constructing surface drains in the interior of the town of Balaghat and sent to the Collector, who returned it suggesting that a complete scheme of drainage should be prepared for the town.	Rs. 105 were spent on drainage, Rs. 183 and Rs. 125 were spent on drainage, Rs. 220 were spent on pavements and drainage respectively.	19
20	Faridabad	...	5,220	89-62	Water brackish in many wells	Some <i>khadar</i> drains exist, but none are required, and should be on a better slope to ensure their being self-cleansing. Many of the lanes are unpaved, and suitable places for depositing night-soil should be selected, as at present it is thrown just outside the town and is dangerous to health.	Rs. 105 were spent on drainage, Rs. 183 and Rs. 125 were spent on pavements and drainage respectively.	Rs. 105 were spent on drainage, Rs. 183 and Rs. 125 were spent on pavements and drainage respectively.	20
21	Karnal	..	21,530	42-31	.....	Some drains are flushed into main drains, which discharge into the old canal, but the outlet channel runs round part of the city (i.e. a <i>khadar</i>) drain before emptying itself into the canal.	A certain amount of filth finds its way into the drains.	Some drains are flushed into main drains, which discharge into the old canal, but the outlet channel runs round part of the city (i.e. a <i>khadar</i>) drain before emptying itself into the canal.	21
22	Kaithal	..	15,768	40-05	.....	The small drains are cleaned daily by <i>bazaris</i> . The main drains, which tip sewage are never quite clean, and free from smell, though they are flushed with canal water. The night-soil is thrown into a compound made for the purpose outside the city and is used as manure. Street rubbish is removed to waste land and sold to <i>zamindars</i> . The drains are of good brickwork.	Those are both public and private latrines, but the drains are used as animal tanks. The surface drains are also loaded by some of the contents of latrines emptying into them. The drains discharge into fields near the town wall and the night-soil and street <i>dust</i> are deposited in eight enclosures about 200 yards from the city.	Those are both public and private latrines, but the drains are used as animal tanks. The surface drains are also loaded by some of the contents of latrines emptying into them. The drains discharge into fields near the town wall and the night-soil and street <i>dust</i> are deposited in eight enclosures about 200 yards from the city.	22
23	Panipat	..	27,547	36-96	.....	The drains are of good brickwork, and discharge into the Gonda nullah, with the exception of the main d.r.in front of the Rana Darwaza, which empties itself into a pool 300 yards from the city. The drains are not flushed. A smell of urine is noticed everywhere.	Rs. 100 and Rs. 115 were spent on pavements and water supply respectively.	Rs. 100 and Rs. 115 were spent on pavements and water supply respectively.	23

STATEMENT NO. XI—*continued.*

No.	Name of Municipality.	Discretor.	Water-supply.	Drainage.	Remedial measures adopted.
24	Lafwra	4,011	29:92	There are 23 wells, all belonging to the Municipality. Five of these contain good drinking water; the rest are slightly brackish. They are seldom cleaned. There are also tanks and ponds for bathing purposes.	There are no public latrines, and although there are some horse latrines, fields, adjoining the town, are chiefly used, and are in a filthy state. The drains are open and constructed of good brickwork. They discharge into tanks and pond, the overflow from which passes into the Rishi nullah. The night-soil and street refuse are removed to fields and waste land. The former is used for cultivation, the latter for brick-burning.
25	Shahabad	11,473	22:57	Drinking water sufficient and obtained from wells, but these are seldom cleaned. Some of the wells are private property, the others municipal. There are a few ponds and tanks.	There are only house latrines. The soil is removed by sweepers in baskets and on donkeys. It is deposited on waste lands and used as manure. The drains, which are good, are open and discharge into low land, tanks and ponds. They are not contaminated by house sewage, and are cleaned out by <i>bhistis</i> . The street refuse is removed to waste lands and sold for manure by the municipality.
26	Thanesar	6,111	22:91	Drinking water is obtained from wells and is sufficient and apparently fairly wholesome. Most of the wells are private property. All the wells, public and private, are neglected and seldom cleaned out. Tanks and ponds are used for bathing, &c.	There are only house latrines, night-soil and street refuse collected in baskets and thrown on fields and waste land. Drains are bounded over by shopkeepers and houses owners who claim the frontage, although the municipality dispute their claim. The drains are out of repair and are choked in many places. The shopkeepers offer to pay half the cost of constructing new surface drains parallel to the existing ones. The present drains are used as manurals and are never cleaned; they discharge into tanks, ponds and nullahs.
27	Umballa	26,866	27:14	Water-supply scheme completed in 1895 ...	Drainage very defective, waste water flows into dirty tanks which cannot be emptied or cleaned or a flow into flats impossible.
28	Jagadhri	13,029	28:40	Water supply liable to pollution	Drainage and cleaning defective
29	Burya	6,809	26:73	Ditto	Drainage defective
30	Sadhuara	10,445	23:38	Ditto	Drainage very defective, cleaning arrangements unsatisfactory.
31	Rupar	8,698	21:17	Water supply good	Natural drainage good. The public latrines are scarcely used, cleaning arrangements very irregular.
					A drainage scheme is being prepared by the Executive Engineer. Rs. 125 and Rs. 8,166 were spent on drainage and water-supply respectively.
28	UMBALLA.				... ..
29					.....
30					.....
31					.....
					24 25 26 27 28 29 30 31

32	Simla	...	13,279	26-63 The water supply is insufficient night-soil, &c., have to be carried too far on men's heads. The bazaar is very much overcrowded.	33	Kangra	...	5,234	32-29 The water supply is obtained from wells and <i>haats</i> <i>not</i> protected from pollution.	34	Dharmshala	...	2,778	37-05 The drinking water is obtained from 20 wells or springs which are liable to contamination, and for other purposes from three <i>kuls</i> on small aqueducts, which are also contaminated.	35	Narpur	...	4,837	38-66 Water is obtained from 242 wells and 10 tanks. The tanks are principally used. They are liable to pollution and sometimes run dry, thus ob- liging the inhabitants to get water from a tribu- tary of the Chakki stream, a considerable dis- tance off.	36	Hoshiarpur	...	17,546	34-71 Several of the wells are not protected with suit- able copings.	37	Khanpur	...	3,533	40-25 All the streets have open masonry drains which discharge into the adjacent stream. Sweepers and <i>thatis</i> are employed for the removal of sewage. The sewage system appears to be efficient.	38	Harihar	...	5,006	24-91 Several of the wells are not protected with suit- able copings.	39	Garhdiwâla	...	4,045	31-89 Ditto	40	Dasiya	...	7,047	30-65 Ditto	41	Tanda and Urmâr		11,632	34-18 Ditto	42	Mianî	...	6,649	24-97 Pitter	33	The whole scheme has recently been considered by the Simla Extension Committee, and proposals involving large expenditure submitted. Rs. 11,193, Rs. 25,916, Rs. 19,585 and Rs. 1,917 were spent respectively on drainage, water- supply, construction of, and repairs to, latrines.	34	The proposed scheme of water supply by iron pipes for the lower ward of the station is under consideration. The scheme will be carried out as soon as funds are available.	35	There is a proposal to bring good drinking water from a spring called <i>badâ</i> of Khevâhagar, suburb of Narpur town, through iron pipes into the town. The work has been estimated to cost Rs. 3,000. The Committee thinks of obtaining a loan from Government.	36	New drains of proper form are made every year in place of old improper drains. The owners of fields around the city are served with notice and are prosecuted. Fines have been put up in the <i>do</i> to make the site for people to go beyond these for purposes of nature. The law places around the city and polluting water supply are being filled up as far as funds allow. The Babidârpan <i>latah</i> drain collects outside the town and the sewage is used for fields all the year round except in rainy season, when it gives offen- sive smell. If funds allow this will be drained into the <i>do</i> .	37	A proposal is under consideration for constructing an embankment to protect the town from being flooded during the rains. Rs. 2,111 and Rs. 522 were spent on drainage and water supply res- pectively.	38	Rs. 295 were spent on pavements,	39	Wells were cleaned and the surroundings kept clean as far as funds allowed.	40	The establishment was made to work this year and the general cleanliness was reported better.	41	Wells cleaned and drains were kept clean as far as they could be done.	42	Wells cleaned and the establishment made to work properly.
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STATEMENT No. XI—continued.

1	2	3	4	5	6	7	8	9	10	11	12
CHIEF SANITARY EFFECTS.											
14	Name of Municipality.	District.	Total population according to census of 1891.	Total death-rates per 1,000 of population.	Water supply.	Burden.	Remedial measures adopted.				
43	Mukerian ...	... District—concluded.	3,977	39.98	Water-supply sufficient. Wells seldom cleaned. .	As above for Tanda except that about half the rain's discharge into one large masonry drain which empties itself into a tank just outside the town, while the sewage of the other half of the drains is deposited outside the town	Rs. 700, Rs. 1,686, Rs. 1822 and Rs. 229 were spent respectively on pavements, drainage, water supply and repairs to latrines & tanks	43			
44	Uua ...	...	4,483	31.45	Water-supply efficient. There are 16 wells, which are seldom cleaned.	The drains inside the town are defective. An extra-municipal drain has been recently constructed. It carries off most of the sewage of the town and is flushed by water from a well. The remainder of the sewage is carried into depressions around the town.	Rs. 700, Rs. 1,686, Rs. 1822 and Rs. 229 were spent respectively on pavements, drainage, water supply and repairs to latrines & tanks	44			
45	Anandpur ...	...	5,100	27.84	Water-supply efficient. There are 51 wells, which are seldom cleaned.	The street drains are in fair order, but sewage accumulates in fields and low-lying grounds.	45				
46	Jullundur ...	...	50,375	31.94	...	The drainage system requires improvement, the land near the town being heavily contaminated by sewage.	46				
47	Alawalpur ...	...	4,380	18.95	Drinking water obtained from wells ..	The sewage of the town (with the exception of that of the western portion, which drains into a large latrine tank) is conveyed by recently constructed drains and disposed of some distance from the town.	47				
48	Kartarpur ...	...	10,441	28.06	...	The drains are fairly well flushed, but badly constructed, the town is on elevation, as sewage runs easily drains off.	48				
49	Bungah ...	...	5,010	46.51	...	The sewage is deposited on low-lying ground around the town: the drains are flushed by bursts, but they are badly constructed and out of repair.	49				
50	Raiion ...	...	10,667	30.47	Ditto. There are 107 wells and is sufficient	The drains inside the town are flushed by bursts, and discharge into the river. The drainage system is incomplete, but as far as it goes efficient.	50				
51	Navasular ...	...	5,601	32.14	Contaminated by <i>ajni</i> near the town ..	The drains are flushed by bursts, and the sewage is emptied into a large latrine tank just outside the town.	51				
52	Phillour ...	...	6,697	31.81	...	The drains are flushed by bursts, but the sewage is allowed to spread over fields and low-lying grounds.	52				
53	Nirmahal ...	...	8,520	33.69	From wells ..	3872 The water is obtained from wells, and is, as a rule sweet.	53				
54	Nakodar ...	...	9,740	22.90	...	But the water in 15 of the wells is brackish. Water-supply scheme under contemplation	54				
55	Ludhiana ...	...	46,024			A depression near Lakkar Mandi is being filled up, some of the streets in the town still need improved drains and better paving. No drains to take away waste water from wells,	55				
						Three of the flushing wells connected with new drains are being provided with better water lifts. Wooden latrines and temporary coverings have been removed off the drains and feeders in Channa Bazar, and future encroachments discomfirmed. Courtyard of Kegara-					

STATEMENT No. XI—continued.

No.	Name of Municipality.	District.	CHIEF SANITARY DEFECTS.			Remedial measures adopted			
			1	2	3		6	7	8
66	Mooltan	...	Population according to Census of 1891.	Total death-rates per 1,000 of population.	2944	There are about 400 wells in the city and about 300 in the suburbs from which the people draw water for domestic purposes. The Hindus go out to bathe in the Wali Muhammed Canal in the inundation season and to the wells around the city in the cold weather. Amongst the Musalmans the people bathe in their own premises with water in small quantities drawn from the wells adjacent to their houses.	About two-thirds of the city is drained by an underground covered sewer and another short open one discharging into small hollows just outside the city walls. There is also surface drainage for the remaining portion of the city flushed by wells and <i>bhishts</i> , the overflow draining into the same hollow.	A scheme for supplying water from wells sunk near the Idarhi is under consideration. The preliminary project of the drainage of the Mooltan city is in hand. Rs. 1,081 was incurred on the preliminary survey of the city and its suburbs. Rs. 11,373, Rs. 5,738, Rs. 10,225 and Rs. 149 were spent respectively on pavements, drainage, water-supply and repairs to latrines.	66
67	Kahror	...	...	5,494	13,83	From drinking wells	Drains need repairs. North and south drains end in cesspools just outside town.	.....	67
68	Shujabad	...	...	6,32	3C97	From drinking wells	Drains need repairs. Drains end just outside town in a cesspool. Liable to floods from Sutlej.	.....	68
69	Jalalpur	...	...	8,884	4094	From drinking wells ... ... ...	.....	.....	69
70	Talimba	...	...	2,792	1719	...	.....	.....	70
71	Dunipur	...	...	2,101	3427	...	.....	.....	71
72	Jhang	...	...	8,476	3823	Wells more or less exposed to pollution. Parpetts in many of the drinking water wells inefficient.	Likely to flooding from the Chenab, but to a less extent than in the case of Maghiana.	.....	72
73	Maghiana	...	...	13,865	4238	Ditto ditto ditto	The low ground on the north-west much affected by floods from the Chenab.	.....	73
74	Chinspot	...	...	13,476	4215	Water in many instances brackish and exposed to pollution.	One large hollow outside the town and drainage water from the east collects there. Some drains still remain to be built.	Drains will be built as funds permit	74

75	Montgomery	...	5,159	17.25		The surroundings are not looked after. Pukka drains are required for the town.	75	No remedial measures completed up to the present Rs. 175 and Rs. 325 respectively were spent on drainage and water-supply.
76	Kamtilia	...	7,490	24.97	From wells	The surroundings are very dirty and require attention ...	76	No remedial measures completed up to the present Rs. 464 were spent on water supply.
77	Palkpattan	...	6,522	31.74		The latrines and slaughter-house require proper attention	77	No remedial measures completed up to the present
78	Lahoro	...	169,597	34.17	Pure water is supplied from the municipal water works.	The natural drainage is fair. There is no swamping in the town. The sewage drains in the city and in Anakali are of an obsolete pattern and are broken and with insufficient fall. The night-soil and sweepings are removed by cultivators' carts.	78	The new drainage works of the city and Anakali are in hand and will probably be completed during the year. A project for the extension and improvement of the water-supply system has been sanctioned by Government and will be put in hand as soon as sanction has been received to the loan applied for. A scheme for a conservancy tramway, which will supersede existing conservancy arrangements, is under the consideration of Government.
79	Shankarpur	...	4,924	28.84	Wells require copings	The streets and drains are cleaned as usual by the conservancy staff.	79	.....
80	Chinifin	...	10,839	45.60	Water-supply fair	...	80	A drainage scheme for the Chinifin Municipality is in hand. The map of the town has been prepared and levels are being taken under the direction of the Executive Engineer.
81	Khudian	...	2,921	32.62	Wells require copings	...	81	.....
82	Kasur	...	20,290	30.80	The quality of water of the wells in the city is sweet, but in some brackish.	Drainage system defective ..	82	The Kasur Municipality has proposed the building of a drain outside the Palivala Gate, and the plan and estimate are under preparation. As soon as they are approved by the Executive Engineer the work will be put in hand.
83	Khemkarn	...	5,935	31.34	Water is obtained from wells which is abundant, and for the most part sweet, but in some it is brackish.	Drains require repairing ..	83	The Khemkarn Municipality have proposed the construction of drains in their town, and plan and estimate are under preparation. The whole work is estimated to cost about Rs. 1,500.
84	Patti	...	7,495	32.29		.....	84	Orders have been lately issued for the taking of levels in Parti with a view to the preparation of a drainage scheme at the expense of the Municipal Funds.

STATEMENT No. XI—*continued.*

STATEMENT No. XI—continued.

No.	District.	Name of Municipality.	Census of 1891.	Total death-rates per 1,000 of population.	Water supply.	Drainage.	Remedial measures adopted.	No.
CHIEF SANITARY DEFECTS.								
111	Kila Didar Singh,	Eminabad	... 5,841	39·89	.....	Sullage is not used : drains are only partly flushed by water men. Not satisfactory.	Rs. 313 were spent on water supply.	111
112	Akalgirh	Kila Didar Singh,	2,843	29·55	.....	Subsoil of neighbourhood damp	Rs. 128 and Rs. 149 were respectively spent on pavements and drainage.	112
113	Rámnagar	...	4,262	28·70	.....	Neighbouring country liable to flooding .. .. .. .. ..	.. .. .. .. ..	113
114	Bhera	GUTTRANWALA—concl'd.	...	6,592	41·72	Drains are cleaned by sweepers, who remove the solids on donkeys. Sullage is not utilized, drains are flushed by water men. Sullage is removed towards Palkhu stream. Not satisfactory.	.....	114
115	Shahpur	...	17,428	29·78	.....	Drainage faulty, the outfall being close to the town, and ruin water lodges in depressed area surrounding the town.	.....	115
116	Sáliwál	SHAHPUR.	6,337	25·56	.....	Drainage insufficient and clogged. Wells foul. The Sudar station much the same and faulty in latrine arrangements, not only too few but too far to meet the wants of the Sudar bazaar.	Rs. 415 and Rs. 293 were spent respectively on pavements and drainage in Biher town. Owing to the want of funds no sanitary improvements can be carried out.	116
117	Mian	...	...	9,210	31·49	Surroundings very insanitary with stagnant tanks on the road side. Wells foul.	Rs. 200 were spent on pavements in Shahpur	117
118	Khusháb	...	7,149	30·63	.....	Drainage faulty and clogged. Manure in stocks just outside the town, houses in view. Streets narrow and dirty.	.....	118
119	Jhelum	...	9,832	21·16	Water from the river (very dirty) used for drinking	Tops of houses used as latrine and uncared for .. .. .. .. ..	.....	119
120	Pind Dádán Khan,	...	*	9,711	32·54	Water supply from the river and from wells	Connection of the large sewer which drains part of the north end of the town with the river and making it entirely of masonry. At present it is only <i>pakka</i> and much too wide for a short distance from the town. The great fault in the internal sanitation of the town is the failure of house owners to connect their house drains with the street drains.	120
121	Jhelum.	...	15,055	34·94	The existing arrangements for water supply are defective as regards quantity and quality.	.....	Rs. 321, Rs. 148 and Rs. 1,663 were spent on pavements, drainage and water supply, respectively. The Committee is in communication with the Executive Engineer with a view to a better scheme being drawn up.	121

STATEMENT No. XI—concluded.

No.	District.	Name of Municipality.	Population according to census of 1891.	Total death-rates per 1,000 of population.	Water supply good.	Drainage.	Remarks about water supply.	No.
CHHETTAH AND TARA DFFICHS								
132	Kohat.	Kohat	14,347	28.65	Water supply good	Drainage efficient, and the city is very well supplied with water, more and longer than before.	The open drainages which were used earlier for drinking and bathing purposes were made over at a cost of Rs. 1,200,000 to prevent the pollution of the water by filth and dust, and a new bathhouse was previously exposed.	132
133	KOHAT.	Prainoor	"	"	"	"	Rs. 1,800 and Rs. 2,700 respectively were spent on making and repairing the water supply.	2
134	DANNAH.	Isakhel	7,600	25.79	The wealthy get their drinking water from the Indus; canal water is used by others, and when the canal is dry water is obtained from 2 tanks. System inefficient.	The drainage system is inefficient.	Measures are being taken to improve the drainage system.	134
135	DANNAH.	Kailagh	6,702	38.79	"	"	"	135
136	DANNAH.	Lakki	4,488	47.24	Water in the wells is brackish : drinking water is obtained from the Gambilla river.	There are a few drains, and the streets are very steep. Streets and lanes are unpaved and undrained.	Measures are being taken to improve the drainage system.	136
137	DERA ISMAIL KHAN.	Dera Ismail Khan	21,573	53.86	Drinking water is good and sufficient which is obtained from wells.	Town situated on nearly dead level ground with a very gentle slope towards the Indus. Subsoil water is 20 feet from surface. The drainage is very unsatisfactory. The slope is too slight to carry away the water which collects and stagnates, and has to be removed in water carts.	Measures are being taken to improve the sanitary defects in the town. A cart has been purchased to carry away muddy water at a cost of Rs. 132.	137
138	DERA ISMAIL KHAN.	Kulachi	9,447	17.78	Drinking water is obtained from shallow pits dug in the bed of the Loni, in which the water is sweet but muddy. The water from wells inside the town is brackish.	The town is situated on the left bank of the Loni. Subsoil water is 30 feet below ground, and sewage fair. The drainage of the town is far from satisfactory. Rain-water collects and stagnates in the streets and drains for days and weeks.	Rs. 826 and Rs. 1,133 were spent on pavements and 100 ms to latrines, respectively.	138

139	Dera Bhakkar	5,210	43 38	Drinking water obtained from wells; the water is clear, tasteless and wholesome. The wells have no proper fencing around them, and are seldom cleaned.	The town is built on the high bank of the Thal close to the Kaohi or riverbank tract, which is annually flooded by the Indus. The natural drainage of the town is good. Subsoil about 30 feet from the surface. Sewage fair.	140	Loiah	7,487	28 40	Drinking water is obtained from wells, which is good and wholesome, but many of the wells have no palapets, and they are not regularly cleaned.	Only the main bazar has packa flooring, but the kuchds are kuchi ones, and they have no proper drains.	141	Karor	2,883	46 95	Water is obtained from wells which is good and sufficient. Wells have no copings around them.	142	Dera Ghazi Khan	28,899	30 04	Water-supply is obtained from 243 wells in the city. Water is contaminated with organic matter owing to crowded state of houses. The wells are annually cleaned out. There is no regular system of water-supply; the water is bad owing to the very high spring level.	Drainage very imperfect	143	Jampur	5,815	31 81	From wells, the water of which is good in quality. There is no regular system for water-supply.	The town is surrounded by land irrigated by inundation canals very little full towards the Indus. Subsoil water about 27 feet from surface. There is no regular system of drainage.	144	Dajjal	6,085	61 60	Water-supply is from a tank filled at intervals by water from the Harmand null stream. The water is of good quality.	There is good natural drainage into beds of hill streams. There is no regular system of drainage.	145	Rajapur	4,064	28 70	Water-supply is from 38 wells, in 12 of which the water is bad. There is no regular system of water-supply.	The drainage is not good. Subsoil water is 22 feet from the surface. There is no regular system of drainage.	146	Kot Mithan	3,621	23 73	Water-supply is from 12 wells, some of which are sweet and others brackish. There is no regular system of water-supply.	There are no swamps. The subsoil water is 16 feet from the surface. There is no regular system of drainage.	147	Muzaffargarh	3,065	34 34	The town is no regular system of water-supply. Water is obtained from wells.	There is no regular system of drainage defective.	148	Khangarh	3,505	84 24	There is no regular system of water-supply, and is brackish.	There is no regular system of drainage	149	Alipur	2,552	38 31	The water is obtained from wells, which is pretty clean.	Ditto ditto	150	Khairpur	2,424	50 74	The water is obtained from wells. The wells are covered and protected.	Ditto ditto
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APPENDIX A.

**STATEMENT SHOWING BIRTHS AND DEATHS REGISTERED IN THE
SELECTED VILLAGES SITUATED ON THE WESTERN JAMNA
CANAL DURING THE YEAR 1898.**

APPENDIX A.

STATEMENT SHOWING BIRTHS AND DEATHS REGISTERED IN THE SELECTED VILLAGES SITUATED ON THE WESTERN JAMNA CANAL DURING THE YEAR 1898.

Ratio per 1,000 living									
Delhi District.									
1 Daburpur	"	"	240	289	479	3	7	10	9
2 Sitouli	"	"	404	376	870	7	9	16	7
3 Jua	"	"	1,576	1,306	2,912	70	70	116	49
4 Mahra	"	"	946	789	1,735	53	37	90	35
5 Jafarabad	"	"	260	197	457	8	9	17	...
6 Chittau-	"	"	492	378	870	15	16	31	12
7 Kareori	"	"	342	290	632	18	9	27	16
8 Machri	"	"	1,401	1,326	2,787	3	3	6	1
9 Jaji	"	"	294	213	507	10	9	11	37
10 Garhi Pera	"	"	202	199	401	14	6	16	50
Total	"	"	31,304	26,927	58,241	1,332	1,207	2,539	950
Ratio per 1,000 living									
5 Mehmudpur	"	"	1,498	1,213	2,711	52	52	119	67
6 Simalka	"	"	247	239	486	13	9	21	15
7 Sarasdpur	"	"	385	341	726	18	25	43	15
8 Gohana	"	"	4,046	3,662	7,706	110	100	210	91
9 Barotha	"	"	402	365	707	28	21	49	12
10 Tundla	"	"	370	292	652	12	11	23	8
11 Sanghai	"	"	8,085	2,614	5,649	115	107	222	76
12 Khandla	"	"	1,490	1,313	2,803	68	66	134	45
13 Kharhanda	"	"	1,922	1,657	3,578	85	53	140	56
14 Rohna	"	"	1,652	1,323	2,975	75	97	172	60
15 Pahidhpur	"	"	837	684	1,521	42	32	75	15
16 Parwala	"	"	448	368	816	16	12	26	11
17 Polangi	"	"	339	308	617	11	12	23	13
18 Kiloi	"	"	2,115	1,982	4,097	84	92	176	63
19 Bhadot	"	"	875	774	1,649	33	52	105	31
20 Rurki	"	"	1,178	1,036	2,211	44	38	82	31
21 Kansha	"	"	758	710	1,468	36	54	91	24
22 Aasan	"	"	579	516	1,635	32	27	53	19
23 Atayal	"	"	768	634	1,302	35	26	61	41
24 Ismailia	"	"	2,051	1,542	3,563	70	88	164	49
Total	"	"	31,304	26,927	58,241	1,332	1,207	2,539	950
Ratio per 1,000 living									
1 Daburpur	"	"	240	289	479	3	7	10	9
2 Sitouli	"	"	404	376	870	7	9	16	7
3 Jua	"	"	1,576	1,306	2,912	70	70	116	49
4 Mahra	"	"	946	789	1,735	53	37	90	35
5 Jafarabad	"	"	260	197	457	8	9	17	...
6 Chittau-	"	"	492	378	870	15	16	31	12
7 Kareori	"	"	342	290	632	18	9	27	16
8 Machri	"	"	1,401	1,326	2,787	3	3	6	1
9 Jaji	"	"	294	213	507	10	9	11	37
10 Garhi Pera	"	"	202	199	401	14	6	16	50

APPENDIX A—*continued.*

APPENDIX A.—concluded.

No.	Names of villages.	POPULATION ACCORDING TO CENSUS OF 1891.										TOTAL NUMBER OF BIRTHS REGISTERED. DEATHS REGISTERED.										CAUSES OF DEATH.										AGES AT DEATH.													
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40				
Karnal District.																																													
1	Karakwali	...	...	...	...	67	58	125	1	...	1	1	8	8	...	1	...	1	...	10	9	7	16	12	3	2	...	...	...	...	...	...	...	...	...	...	...	1
2	Sitondi	...	...	...	...	705	619	1,324	23	22	45	42	37	79	34	60	...	...	39	...	...	1	1	1	1	...	4	3	2	4	1	2	4	3	2	...	...	...				
3	Jhianwarheri	...	...	...	...	206	192	338	19	7	17	8	11	19	43	48	...	17	...	6	...	1	2	...	1	2	...	...	...	3	...	...	3	...	...	3		
4	Hasarpur	...	...	...	...	210	193	403	14	5	19	12	9	21	47	52	...	15	...	6	1	3	3	1	3	2	...	1	...	1	2	4	...	...	1	2	4		
5	Risine	...	...	...	...	211	198	379	6	5	11	9	4	13	29	34	...	9	1	3	3	1	3	2	...	1	...	1	...	...	1	...	1	...	1	1	5		
6	Upli	...	...	...	...	29	21	50	1	1	2	1	1	2	40	40	...	2	...	26	...	1	1	...	1	...	1	...	...	1	...	1	...	1	...	6			
7	Pheriak	...	...	...	...	635	612	1,247	21	28	49	23	25	45	39	36	...	...	26	...	1	21	9	8	4	6	...	1	...	1	...	1	...	1	...	1	...	1	
8	Bidishahpur	...	...	...	...	37	22	59	...	...	1	...	1	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	
9	Makalpur	...	...	...	...	141	96	257	13	8	21	5	10	15	89	63	...	11	...	1	3	...	2	2	3	1	...	1	...	1	...	1	...	1	...	1	...	1			
10	Gharonda	...	...	...	...	2,743	2,133	4,876	126	103	229	98	76	174	47	36	...	99	...	1	74	31	26	1	6	3	...	4	3	4	...	4	3	4	...	4	3	4			
11	Kora Kheri	...	...	...	...	111	92	203	5	10	6	9	15	39	74	...	12	...	3	2	2	1	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1				
12	Shekpara	...	...	...	...	399	378	777	21	10	31	12	12	21	40	31	...	14	1	9	6	3	2	3	...	1	...	1	...	1	...	1	...	1	...	1	...	1			
13	Begampur	180	156	356	3	5	8	6	7	13	24	39	...	10	...	1	5	4	2	1	3	...	1	...	1	...	1	...	1	...	1	...	1	...	1						
14	Dudhnia	...	...	...	...	426	390	816	15	16	31	19	21	40	38	49	...	27	...	13	1	7	9	3	1	1	...	1	...	1	...	1	...	1	...	1	...	1			
15	Kutina	...	...	...	...	64	72	136	...	4	1	1	2	20	15	...	2	...	17	...	1	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1			
16	Garha	660	587	1,247	18	19	37	22	15	37	30	30	...	29	...	17	5	4	8	2	3	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1					
17	Kohand	689	471	1,160	35	20	55	81	14	45	47	39	...	33	...	12	5	9	7	1	4	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1				
18	Gujibar	355	298	648	13	14	27	12	7	19	42	29	...	17	...	2	2	2	1	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1					
19	Barawali	458	337	815	26	21	47	27	14	41	58	50	...	18	...	1	22	12	5	7	2	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1				
20	Gogainsa	1,397	1,190	2,587	72	72	141	55	62	117	56	45	...	54	...	1	62	19	18	13	2	3	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1		
21	Bilbarpur	197	152	349	9	8	17	11	7	18	53	56	...	13	...	3	3	2	3	1	3	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1	...	1
22	Rekhan	826	753	1,379	26	33	59	28	35	63	37	40	...	52	...	14	43	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		

		Total	Ratio per 1,000 living
23	Bela	114	2
24	Munak	114	2
25	Dharmgash	114	2
26	Qavi	114	2
27	Shera	114	2
28	Asán Khurd	114	2
29	Madloks	114	2
30	Bhalsi	114	2
31	Ori	114	2
32	Lohári	114	2
33	Begumpur Bawant	114	2
34	Joshi	114	2
35	Idayua	114	2
36	Úrgia Kalán	114	2
37	Chichrána Kalán	114	2
38	Kurána	114	2
39	Nouitha	114	2
40	Brahman Majra	114	2
41	Jonda Kalán	114	2
42	Patri	114	2
43	Irána	114	2
44	Mandi	114	2
45	Kachroli	114	2
46	Razpur	114	2
47	Muhammadpur	114	2
48	Norha	114	2
49	Jataul	114	2
50	Binghol	114	2
51	Dahar	114	2
52	Hartári	114	2
53	Boli	114	2
54	Gawalira	114	2
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STATEMENT SHOWING THE INCOME AND EXPENDITURE OF MUNICIPAL

No.	Names of Districts	Number of municipal towns in each district.	ASSETS.			Conservancy establishment.	Pensions	Roads and bridges.	Drainage or sewerage.	Dis.
			4	5	6					
1	2	3	Rs	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Delhi Division.										
1	Hissar	5	11,445	1,26,626	1,38,071	17,816	852	13,222	470	
2	Rohtak	5	22,001	68,524	90,325	6,266	1,200	2,657	..	
3	Gurgaon	6	53,736	95,913	149,619	8,987	2,466	12,073	614	
4	Delhi	4	38,120	4,69,368	507,488	82,426	296	21,339	3,574	
5	Karnal	6	24,750	1,02,965	127,715	12,550	668	2,903	3,498	
6	Umballa	5	7,032	1,00,183	1,07,215	10,759		4,679	180	
7	Simla	1	64,202	3,45,620	4,09,822	34,754		32,986	11,199	
Jullundur Division.										
8	Kangra	3	3,542	24,203	27,745	3,430	352	1,340	5	
9	Hoshiarpur	10	8,827	73,291	82,118	10,098	424	3,680	2,220	
10	Jullundur	9	26,557	1,21,582	1,48,189	16,649	1,211	6,085	2,365	
11	Ludhiana	5	20,937	1,38,783	1,59,720	13,400	1,636	3,917	6,647	
12	Ferozepore	6	70,691	87,673	1,58,364	9,077	193	7,285	627	
Lahore Division.										
13	Mohali	6	74,082	1,97,662	2,71,744	23,715	11,393	16,507	5,849	
14	Jhang	2	18,263	66,817	85,080	8,741	700	2,474	263	
15	Mianwali	3	*6,158	31,084	37,242	3,082	88	24	181	
16	Lahore	7	1,17,939	5,80,012	6,97,981	74,487	214	28,278	19,855	
17	Amritsar	4	138,522	4,95,536	5,34,058	72,532	2,149	16,563	5,980	
18	Gurdaspur	9	39,427	1,22,913	1,62,370	14,830	2,115	1,760	2,141	
Rawalpindi Division.										
19	Sialkot	7	13,501	1,39,232	1,52,783	17,880	1,232	1,083	4,813	
20	Gujrat	4	9,272	14,304	53,576	5,312	440	605	584	
21	Gujranwala	6	38,123	1,19,660	157,989	16,728	7,892	1,093	2,849	
22	Shahpur	5	8,986	57,238	66,224	7,200	1,263	149	370	
23	Jhelum	2	14,213	59,290	73,503	7,029	331	1,233	262	
24	Rawalpindi	5	111,070	2,99,739	399,744	44,122	350	9,243	2,942	
Peshawar Division.										
25	Hazara	4	6,013	37,201	43,214	5,369	..	340	37	
26	Peshawar	7	31,083	2,04,694	235,729	21,211	1,842	1,825	16,578	
27	Kohat	1	20,919	42,877	63,826	5,056		832	1,867	
Dera Jat Division.										
28	Bannu	4	31,523	68,278	99,801	9,580	1,306	266	562	
29	Dera Ismail Khan	6	9,576	1,01,703	1,11,279	13,856	1,416	1,910	142	
30	Dera Ghazi Khan	5	26,518	1,00,299	1,26,817	10,113	400	2,306	510	
31	Muzaffargarh	4	24,432	28,168	52,000	8,722	690	633	204	
	TOTAL	150	9,91,384	45,40,697	55,82,081	5,90,777	43,314	1,99,285	96,888	

*The difference in the opening balance due to a mistake in the

† Difference in the opening balance in Amritsar district due to

DIX B.

PITALITIES IN EACH DISTRICT OF THE PUNJAB DURING THE YEAR 1898.

11	12	13	14	15	16	17	18	19	20	21	22	23
BUREMENTS												
Water-supply in- cluding cleaning and repairs of walls, tanks, &c.	Widening of streets.	Construction of latrines	Repairs of latrines.	Total sanitary charges,	Vaccination	Dispensaries	Police	Schools	Miscellaneous	Total expended	Balance unexpended	No
11	12	13	14	15	16	17	18	19	20	21	22	23
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	No
5,334	..		380	38,071	1,715	13,942	25,310	21,760	27,256	128,087	9,984	1
260	5	..	91	10,479	161	9,083	7,939	18,931	14,530	61,123	20,402	2
1,104	.		461	25,705	113	11,466	16,193	21,641	26,490	1,01,910	44,739	3
39,305	.	..	229	1,47,169	2,320	29,343	67,072	38,158	1,49,968	133,930	73,558	4
485	..	..	17	20,116	1,142	7,563	21,166	22,750	25,077	97,820	29,805	5
8,268	.	..	148	24,034	652	14,611	12,938	19,441	23,119	91,793	12,422	6
27,738	..	19,588	2,007	1,28,272	437	14,895	15,265	2,635	1,84,687	2,96,191	113,631	7
61	..	.	10	5,198	361	6,422	1,472	1,695	6,459	24,607	3,138	8
524		10	45	17,001	827	7,157	12,187	17,819	16,518	71,509	10,609	9
1,176	100	.	338	27,924	1,007	16,040	17,367	20,371	29,397	1,20,186	27,973	10
730	2	765	112	27,400	940	15,975	15,498	27,605	30,180	1,20,706	38,014	11
57	8		13	17,260	911	13,189	11,416	19,221	32,924	94,924	63,440	12
10,859	..		419	68,742	953	17,962	30,738	25,758	55,375	2,08,528	63,216	13
122	..		192	12,492	396	13,160	8,285	19,956	9,284	62,573	22,507	14
847	..	15	76	4,313	365	6,594	2,552	9,506	6,136	29,496	7,746	15
25,195	..	114	519	1,48,057	2,369	26,476	60,619	21,019	32,3972	5,83,142	114,839	16
2,481	.	37	233	99,995	1,185	38,455	57,983	65,181	2,04,553	4,70,955	63,103	17
2,510	.	..	42	23,998	378	11,414	11,401	31,921	31,365	1,12,877	49,493	18
2,619	..	383	72	28,082	473	11,570	21,078	24,531	19,580	1,33,314	17,419	19
1,155	.	..	35	8,131	186	8,277	8,157	13,220	8,724	46,905	6,581	20
1,424	..	..	96	29,582	1,119	9,296	13,316	21,300	32,308	1,17,351	40,638	21
14	.	..		8,996	581	6,424	9,951	15,514	7,230	48,726	17,498	22
1,703	..	..	158	10,716	319	7,489	10,126	11,881	14,182	53,313	18,190	23
12,242	.	1,180	57	70,186	1,302	25,903	21,017	10,886	1,11,611	2,70,105	129,039	24
2,069	..	..	20	8,135	884	3,090	1,715	7,135	5,933	33,204	10,010	25
9,278	..		213	50,947	1,259	19,227	32,532	12,207	51,553	1,96,745	38,984	26
2,746	.	..	82	10,583	507	778	1,496	7,807	19,936	44,257	19,569	27
3,657	..	51	74	15,496	1,079	6,611	8,117	10,391	12,512	54,599	15,262	28
754	.	78	220	18,376	602	12,097	11,863	11,810	24,349	79,097	32,182	29
367	.	..	142	13,838	1,928	6,726	9,306	17,674	35,893	84,667	42,150	30
115	..	150	...	5,514	240	6,594	2,508	7,691	6,254	28,801	23,799	31
1,65,799	115	22,371	6,551	11,25,100	27,681	3,95,844	5,61,933	5,95,047	16,02,848	43,11,451	12,20,680	

Closing balance of the Pákpatan Municipality last year.
the exclusion of Rám Dás notified area from the returns of this year.

APPENDIX C.

STATEMENT SHOWING THE RAINFALL IN INCHES AT THE SADR STATIONS OF THE PUNJAB DURING THE YEAR 1898

No.	Station*	Months.												Quarters.											
		January	February	March	April	May	June	July	August	September	October	November	December	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total	5th P%						
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21					
1	Hissar ...	0.03	1.48	-	-	-	-	-	2.15	3.87	0.24	0.69	-	1.01	11.18	4.16	4.80	1.01	11.48	1					
2	Rohtak ...	..	1.40	..	..	..	..	..	2.58	4.10	7.16	2.08	1.79	..	0.82	1.40	6.68	10.93	2					
3	Gurjion ...	..	2.11	..	..	..	..	..	0.99	2.53	3.66	4.16	0.51	..	0.56	15.02	2.11	8.63	0.56	16.02	3			
4	Delhi ...	..	2.86	..	..	..	..	..	0.60	0.50	3.96	5.78	1.01	..	0.31	1.63	17.85	2.86	1.14	17.86	4			
5	Karnal ...	..	5.94	..	..	..	..	..	0.20	0.14	2.30	2.33	..	0.95	1.23	25.16	5.94	2.18	23.46	5				
6	Timbalha ...	..	9.10	0.02	..	..	..	..	0.39	3.59	7.69	5.76	3.77	..	1.13	1.13	17.99	1.39	3.77	6				
7	Simla ...	..	0.79	5.20	0.11	0.89	1.21	1.01	16.14	18.77	2.73	..	..	0.13	3.09	52.96	6.10	11.11	31.93	3.22	52.96	7		
8	Dharmshala ...	..	1.30	0.12	5.50	..	..	1.94	13.06	46.80	39.21	5.93	0.31	..	6.50	121.69	10.94	15.00	9.14	6.81	124.60	8		
9	Hoshiarpur ...	..	0.42	0.12	3.65	..	..	0.07	2.21	14.97	8.02	5.65	..	..	4.59	41.36	3.92	22.21	13.32	1.48	22.51	10		
10	Ludhiana ...	..	1.12	0.12	0.54	3.59	..	0.13	2.12	12.92	1.40	2.52	..	..	1.81	22.54	1.19	17.64	16.14	1.81	24.94	11		
11	Ferozepore ...	..	1.12	0.12	0.55	3.59	..	0.08	2.23	8.21	..	..	..	..	0.52	17.76	3.11	9.89	0.52	17.76	12			
12	Mooltan ...	..	1.12	0.12	0.58	3.66	..	0.08	2.23	8.21	1.40	2.52	..	..	..	..	..	..	..	..	..	..
13	Jhang ...	..	1.17	1.17	1.17	1.17	..	0.15	1.25	0.24	0.67	2.25	..	0.42	..	..	1.40	0.22	1.90	0.01	3.53	13		
14	Montgomery ...	..	1.12	0.29	0.86	..	..	..	0.08	0.14	0.63	0.63	1.60	..	0.05	5.03	1.17	0.91	2.90	0.05	6.03	14		
15	Lahore ...	..	1.12	0.12	0.07	4.32	..	..	0.87	1.02	9.32	0.94	0.61	..	0.05	5.04	1.15	0.63	2.92	0.54	5.21	15		
16	Amritsar ...	..	1.12	0.12	0.13	5.69	..	..	0.85	1.90	1.70	1.10	1.10	..	0.05	17.69	1.39	1.89	10.87	0.51	17.69	16		
17	Gurdaspur	1.12	0.12	0.21	6.48	1.73	4.69	10.88	5.91	7.96	0.77	21.46	1.12	7.82	12.12	0.77	21.46	17		
18	Riwalpindi ...	..	1.12	0.12	1.40	3.04	..	..	1.13	0.30	8.41	4.30	8.87	..	..	1.13	39.29	6.42	21.75	1.43	30.29	18		
19	Sialkot	1.12	0.12	0.43	4.91	..	0.03	1.09	1.62	12.36	4.47	5.65	0.51	31.97	5.34	27.74	22.68	0.51	31.27	19		
20	Gujrat	1.12	0.12	0.32	4.93	1.35	0.10	8.84	4.40	2.98	0.56	22.68	5.25	14.45	16.22	0.56	23.48	20		
21	Gujranwala	1.12	0.12	0.32	4.93	1.61	1.00	9.68	2.47	2.83	0.50	22.04	3.95	2.61	14.98	0.50	22.04	21		
22	Shahpur ...	..	1.12	0.12	0.65	2.10	..	..	2.15	2.00	5.95	0.15	1.25	..	..	14.25	2.75	4.15	7.35	14.25	22			
23	Jhelum	1.12	0.12	1.62	3.84	0.20	..	1.16	0.23	9.15	7.34	3.85	0.22	27.61	5.66	1.39	20.34	0.22	27.61	23		
24	Riwalpindi	1.12	0.12	1.40	3.04	0.57	..	1.13	0.30	8.41	4.30	8.87	0.87	21.58	5.01	1.13	21.58	0.87	28.89	24		
25	Abbottabad	1.12	0.12	2.28	5.71	3.90	2.02	3.70	3.94	9.98	6.57	1.48	40.40	11.89	0.66	26.37	1.48	49.40	25		
26	Peshawar	1.12	0.12	0.08	2.11	0.19	0.19	1.23	4.27	0.32	0.32	1.06	0.37	11.95	0.55	0.45	6.05	0.37	11.95	26		
27	Kohat ...	..	1.12	0.12	0.10	3.15	1.56	..	2.04	0.43	2.28	2.85	1.27	..	0.61	14.39	4.81	2.47	6.49	0.61	14.29	27		
28	Bannu	1.12	0.12	0.04	2.40	1.17	0.11	0.79	0.07	6.73	..	0.33	0.07	11.71	3.61	0.97	7.06	0.07	11.71	28		
29	Dera Ismail Khan	1.12	0.12	4.72	0.09	..	0.39	0.49	..	0.12	2.41	..	3.67	..	0.45	6.50	4.81	0.39	0.85	0.45	6.50	29		
30	Dera Ghazi Khan	1.12	0.12	0.80	1.35	0.53	0.12	2.13	..	1.05	7.53	4.60	0.80	6.08	..	7.53	30		
31	Muzaffargarh	1.12	0.12	0.07	1.35	4.60	31		
	MEAN	..	..	0.39	3.77	0.33	0.11	1.03	2.19	8.17	2.67	0.04	1.06	2.64	4.48	3.33	15.22	1.11	24.14	1.11				

APPENDIX D.

LAWRENCE MILITARY ASYLUM AT SANAWAR.

No. I.—Table showing the sickness and mortality among the children of the above Asylum during the year 1898.

MONTHS,	Average strength		Average number daily sick.		Number daily sick per cent. of strength.		Number of deaths.		Rate per 1,000 of strength.		CAUSE OF DEATH.		
											Respiratory disease.		
	I	2	3	4	5	6	7	8	9	10	11	Boys.	Girls.
January	231	179	0.86	0.11	0.07	0.05	1	1	1	1	1	1
February	205	209	3.67	3.20	1.87	1.57	1	1	1	1	1	1
March	288	210	1.20	4.51	1.46	2.11	1	1	1	1	1	1
April	293	212	4.38	3.09	1.55	1.46	1	1	1	1	1	1
May	292	200	4.67	2.06	1.60	1.43	1	1	1	1	1	1
June	290	209	4.45	0.96	1.53	0.46	1	1	1	1	1	1
July	267	212	8.21	6.29	2.86	2.07	1	1	1	1	1	1
August	283	211	12.14	17.03	4.29	7.96	1	1	0.53	1	1	1
September	282	219	9.68	10.25	3.43	4.68	1	1	1	1	1	1
October	282	219	2.18	0.50	0.77	0.23	1	1	1	1	1	1
November	288	216	0.57	1.83	0.20	0.85	1	1	1	1	1	1
December	197	157	2.11	1.77	1.07	1.13	1	1	1	1	1	1
For the year ...	273.42	205.75	4.77	4.39	1.74	2.13	1	1	3.66	1	1	1	1

Distribution of Children according to age on 1st July 1898.

SEX.	2 and under 5 years.	5—10.		10—15		15—20		Total of all ages.
		Boys	Girls	Boys	Girls	Boys	Girls	
Boys ...	5	104	134	51	294			
Girls ...	2	62	103	48	215			
TOTAL ...	7	166	237	99	509			

APPENDIX D—concluded.

No. II.—Table showing the causes of admissions into Hospital among the children of the Lawrence Military Asylum at Sanmar during the year 1892.

CAUSES OF ADMISSIONS.	NUMBER IN EACH MONTH.												TOTAL ADMIS-												ADMITTED			DIED PER				
	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.		
1	2	3	4	5	6	7	8	9	10	11	12	13	11	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31		
Small-pox	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Chicken-pox	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Measles	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Bacillary fever	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Simple continued fever	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Intermittent and remittent fevers	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Malignant cholera	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Diphtheria	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Hooping-cough	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Mumps	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Acute rheumatism	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Fulness pulmonaryis	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Meningitis	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Sunstroke	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Epilepsy	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Conjunctivitis	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Valvular disease of heart	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Group	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Bronchitis	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Pneumonia	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Dysentery	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Diarrhea	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Abscess and ulcer	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Tinea tenuis	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Itch	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Wounds	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
All other causes	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"	"
Total	...	4	1	18	8	25	40	21	16	11	4	14	15	19	15	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1

Admitted per cent. of the average strength in each month.

APPENDIX E.

LAWRENCE MEMORIAL ASYLUM AT MURREE

No. I.—Table showing the sickness and mortality among the children of the above Asylum during the year 1898.

MONTHS.	1	Average strength.		Average number daily sick.		Number daily diseases per cent. of strength.		Number of deaths.		Deaths per 1,000 of strength.		Cause of death.	
		Boys		Girls		Boys		Girls		Boys		Girls	
		2	3	4	5	6	7	8	9	10	11	12	13
January	...	41.35	35.83	...	0.06	...	0.17	...	...	...	...	3	3
February	...	68.67	56.00	0.11	0.01	0.16	0.07	...	...	...	...	1	1
March	...	69.35	63.74	0.06	0.03	0.09	0.05	...	...	...	...	1	1
April	...	76.23	66.20	0.07	0.20	0.09	0.30	...	...	...	...	—	—
May	...	73.41	67.83	...	...	...	...	...	...	...	...	—	—
June	...	74.80	71.83	0.07	0.50	0.09	0.70	...	...	...	...	—	—
July	...	75.00	73.00	...	...	...	...	...	...	...	...	—	—
August	...	75.35	73.00	0.10	...	0.13	...	...	...	...	...	—	—
September	...	74.53	74.40	...	...	...	...	...	...	...	...	—	—
October	...	72.03	75.58	0.03	0.10	0.08	0.13	...	...	...	...	—	—
November	...	72.00	76.00	0.13	...	0.18	...	...	...	...	...	—	—
December	...	45.19	45.03	..	0.03	...	0.07	...	...	...	...	—	—
For the year	...	67.95	64.87	0.30	0.80	0.68	0.12	...	...	...	...	75	73

Distribution of children according to age on 1st July 1898.

Sex.		2 and 5 years.	5-10.	10-15	15-20.	Total of all ages.
Boys	28	34	15	75
Girls	28	33	12	73
Total	54	67	27	148

APPENDIX E—*continued.*

No. II.—Table showing the causes of admissions into Hospital among the children of the Lawrence Memorial Asylum at Munroe during the year 1898.

CAUSES OF ADMISSIONS	NUMBER IN EACH MONTH.												ADMITTED DURING THE YEAR.																
	January			February			March			April			May			June			July			August			September			October	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Small-pox
Chicken-pox
Measles
Enteric fever
Simple continued fever
Intermittent and remittent fevers
Malignant cholera
Diphtheria
Hooping cough
Mumps
Acute rheumatism
Phtisis pulmonalis
Meningitis
Sunstroke...
Epilepsy
Convulsions
Vascular disease of heart
Group...
Bronchitis...
Pneumonia
Dysentery...
Diarrhoea
Abscess and ulcer
Tinea
Wounds
All other causes
Total

Admitted per cent. of average strength in each month.

APPENDIX F.

STATEMENT SHOWING THE RATES OF PRINCIPAL ARTICLES OF DIET, RAINFALL, AND DEATH-RATES BY QUARTERS DURING THE YEAR 1898.

APPENDIX G.

STATEMENT SHOWING THE NUMBER OF WELLS CLEANED AND THE NUMBER OF PARAPETS CONSTRUCTED DURING 1898.

No.	Names of Districts.	Number of wells cleaned.	Number of parapets constructed.	Amount spent.	Remarks.
1	2	3	4	5	6
1	Hissár	22	6	...	
2	Rohtak	68	7	...	
3	Gurgáon	46	1	...	A contribution of Rs. 50 was made from District Funds towards the construction of a <i>pacca</i> well for the benefit of the public
4	Delhi	11	6	176	A contribution of Rs. 39 was also paid from District Funds to a Brahman for constructing a well on a village road
5	Karuál	2	..	...
6	Umballa	4	3	...	
7	Jullandur	31	14	...	
8	Ferozepore	42	14	...	
9	Mooltan	135	..	...
10	Jhang	638	..	...
11	Montgomery	13	..	...
12	Gurdáspur	47	25	587	Mr. J. M. Douie, Deputy Commissioner, says that this year the Public Works Department grant was unusually low (Rs. 25,369), but next year we might be able to provide funds for protecting wells.
13	Siálkot	356	..	...	36 wells were repaired also.
14	Gujránwála	456	..	2,099	36 wells were repaired. The Deputy Commissioner says that no special provision is made for platforms or parapets, and charges on this account are met by transfer from other heads of the account.
15	Jhelum	3	..	...
16	Réwálpindi ... ..	..	..	2,012	The District Board spent a total sum of Rs. 2,012 on improving wells and other sources of water supply in the district during the year under report.
17	Hazára ... ..	..	..	...	The Deputy Commissioner says that the wells in this district, which were used for drinking purposes, chiefly in the Haripur tahsil, were cleaned as usual by the villagers.
18	Pesháwar ... ..	..	..	434	The Deputy Commissioner says that the sum of Rs. 434 was defrayed from the District Fund for cleaning wells.
19	Kohát ... ..	..	..	1,744	Mr L. White King, Deputy Commissioner, says that there are two underground <i>karezas</i> which pass through a part of the city, and the people use them for washing, bathing and occasionally for drinking purposes. The opening of these <i>karezas</i> were made <i>pacca</i> during the year at a cost of Rs. 1,292 so as to prevent the pollution of the water by filth and dirty rain-water to which they were previously exposed. These <i>karezas</i> were also cleaned out at a cost of Rs. 452 during the year.
20	Dera Ismail Khan ... ..	..	..	...	Mr. A. H. Grant, Deputy Commissioner, says that no funds were available this year, but the matter will be kept in view in 1899. Efforts are being made to have <i>pacca</i> platforms round the drinking wells.
21	Muzaffargarh	34	2	...	
	Total	1,908	78	7,052	

